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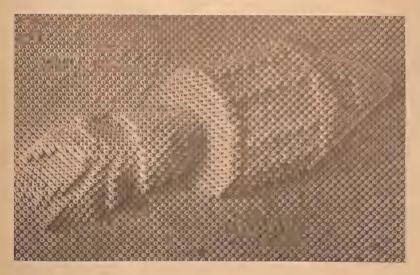
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News and Views

■ PAUL HOFFMAN

Industry Insights

Death Of Apple: Highly Exaggerated
No Room For Complacency

It doesn't

take a contrarian to point out the problems with the recent spate of business press announcements that Apple may be ■ danger of going out of business. These dire predictions are about ■ cyclical as Apple's ability to improve its product lines, although the two cycles seem oddly out of synch. Basically, there's nothing wrong with Apple that hasn't already been a problem in the past that got fixed.

This isn't to say that everything ■ Apple is rosy; it isn't. Some days, it seems like the people working on the next-generation Macintosh operating system couldn't program their way out of a paper bag even with ■ two-year lead time. Other days, it seems like the people ■ new product development have forgotten that most of Apple's market is in families that make less than $60,000 per year. Still, Apple is going strong, staying branched out into a number of promising areas. maintaining ■ good lead on Microsoft ■ ease-of-use, and generally trying to make its established customer base happy.

The Next Big Operating System

One reason for analysts' gloomy outlook on Apple in the last few months is that the long-awaited (and long-overdue) Macintosh operating system software won't be seen until August at the earliest. Although Apple's constant delays in releasing the software (or even figuring out what will be in it) are a disappointment ■ cur-

rent Macintosh users, very few of them ■■■ saying, "Damn, Apple's late again; I'm going to buy ■ PC and learn Windows." And it's not as if Microsoft is turning out its next-generation operating system any faster.

MacOS version 8 will be here when it gets here. All computer ■■■■ have gotten used to delays and redesigns. This one is particularly obvious, however, because Apple has been saying "six months or ■ year" for over two years. The operating system ■ being redesigned from the ground up, with its feature set changing with each corporate renewal at Apple.

To its credit, Apple has done much better for its users with interim upgrades to the current operating system than vendors like Microsoft.

> Although Apple's constant delays in releasing the software (or even figuring out what will be in it) are ■ disappointment to current Macintosh users, very few of them are saying, "Damn, Apple's late again; I'm going to buy ■ PC and learn Windows."

Sure, Apple's numbering system ■ crazy (the current OS is version 7.5.5, as ■ we need three digits), but at least they keep adding better features in ■■■■ that its customers demand, like Internet ■■■■ and graphics.

Some of the consternation reported in the press is because Apple has still not decided whether or not MacOS 8 will be backwards-compatible with MacOS 7.5. You might think that Apple would have to keep it compatible,

but Apple has not committed to this, for good reason. Backward compatibility always leads to lower functionality. Windows ■■ is ■ excellent example of this. In order to keep as much software running as possible, Microsoft loaded itself with an archaic file naming scheme that dates back eighteen years, hardware handling that hasn't seen much real improvement in over five years, and so ■■

Moving Forward, Keeping U■■■■

The trick is trying to figure out how much incompatiblity end-users are willing ■ put up with in ■ the new operating system. A completely incompatible operating system would be crazy, ■■■■ people think of ■ Mac ■■■■ ■■ software than hardware and you don't want ■■ ■■■■ with zero market. But Apple ■ toying with the idea of having essentially no backwards compatibility with earlier system-startup documents, and high (but not complete) compatibility with programs.

■ you're Microsoft, you ■■ do as little or as much ■ you want in ■ operating system and ■■■ have tens of millions of people buy it. Apple doesn't have this kind of luxury. It has

proven that by doing small amounts, it hasn't lost many users. Although different market research companies have different numbers, Apple's share of the market has not changed much in the last five years. But this also means it hasn't gone up much, either.

A big change in the operating system that brings a host of new benefits could in fact get it a crop of new users. These changes allow purchasers to do more with lower hardware costs. Microsoft has been leading the parade on RAM bloat, the tendency for software to require more and more RAM to run with each succeeding version. Although RAM is not all that expensive right now, a new RAM-conserving operating system could let Apple advertise that you get more features in a less expensive system than with Intel systems.

So, When Do We Get To See This?

Depending on when you read this article, Apple may have revealed more about what will and won't be in the new operating system, and when they think it will be ready. Apple decided not to make these announcements at COMDEX in November; instead, it will use Macworld Expo as the place to tell its users what it will do next. The choice of venue shows that Apple still ▄▄ about its current end users and the feeling that Mac users are ▄ breed apart.

Of course, you should suspect any date Apple gives for MacOS 8. They have been ▄▄ wrong so often in the past, any new date can be safely ignored. Instead, wait for the release of the first public beta test of the software, and then add four to six months. One might be wise to do this for future Microsoft operating systems as well.

Apple is, however, expected to have one or two minor releases of MacOS 7 before it ships MacOS 8. The first one should be available in a few months, and will consist mostly of improvements to current Internet and graphics programs. The next release, which we all hope will be called MacOS 7.6 instead of MacOS 7.5.6 (or even MacOS 7.5.5 Release 2, God forbid), is expected to bring all Mac users who have bought any kind of Mac hardware in the past two years up to the same level of functionality.

There's More To The World Than Operating Systems

Although the lateness of MacOS 8 is hurting Apple less than the trade press suggests, there are areas where they clearly need to improve in order to build customer loyalty. The other half of Apple's sales equation, hardware, is limping along with about as little innovation as we are seeing in Intel-based computers. Apple's recently-announced desktop systems have more memory and faster CPUs, but little else to entice current users to upgrade or new users ▄ want ▄ Mac any more than they did two years ago.

The situation for Macintosh portable computers is significantly worse. After a disastrous year of recalls and unavailable models, Apple announced the 1400 series of portables. While they have a few innovations relative to other

Business Solutions

BY ED KAHN

Laptops
Removing Programs From Windows 95

Removing

unwanted applications from your computer has become increasingly complex as computers themselves become more complex. To help you solve this problem, a class of software has been developed to accomplish this seemingly simple task. The latest entry in the stores is a complete reworking of the program that helped define this field—UnInstaller.

UnInstaller 4 is fine-tuned to the Windows 95 environment and, in the bargain, works equally well with Windows NT 4.0. Over the years, I have played with these programs as they came to market and often found competing programs so close that I declared it a toss-up. But the newest UnInstaller seems, for the moment, to be the clear winner.

New versions of almost any program that has already gone through multiple major revisions will usually do a whole a lot more then its initial release. In the case of UnInstaller and its competition, these programs will not only remove applications or groups of applications from your computer, but also help you clean your hard disk of other unwanted and unneeded files. When a program is eliminated, for instance, it often leaves the digital equivalent of crumbs scattered throughout the system. These little bits are

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hard to find but take up disk space and serve no useful purpose.

When UnInstaller 4 loads the first time, it inventories your hard disk. This process takes several minutes, but it goes through each file

UnInstaller 4 is fine-tuned to the Windows 95 environment and, in the bargain, works equally well with Windows NT 4.0.

and sees just what it needs to run and where those elements are stored. Afterwards, each time you start UnInstaller, it scans your disk to bring its database up to date. When it removes a program from your system, it knows if these peripherial elements are needed by other programs. Furthermore, safety is uppermost in the minds of the folks who created UnInstaller. Each item that is removed is compressed and stored so you can easily restore anything that should not have been removed.

As I was experimenting with this capability I found two different listings for one of my programs and noticed that the one listing seemed to be nothing but shortcut files. After I removed this program I discovered that the files that the shortcuts pointed to were also removed. UnInstaller easily restored the needed files it had removed and my system was back to where I had begun.

I also wanted to see if UnInstaller 4.0 was simple enough to use without referring to the *User's Guide.* I thoroughly mastered this program before turning to the documentation. In reading over the booklet, I learned subtleties that I had missed, but the point is, for all its complexity, it is simple to use.

MicroHelp has incorporated other useful features to help you avoid mistakes. Removing unwanted applications is rather straightforward, but cleaning a hard disk

continued on page 33

Laptops *continued from page 28*

of unneeded files is a bit more complex because these files may be necessary for multiple programs. As you begin to clean your hard drive, you can choose categories like shortcuts that point to programs that are no longer ▬ the machine. As you work with UnInstaller, it puts a color code before each file it suggests for elimination. A green dot means that it is clearly safe to remove the file. A yellow dot means use caution and a red dot means that you should not touch the file.

Another tool lets you find duplicate files that are exactly the same name and size. Again, you are warned whether it is safe to remove the files or not. Several years back, I used ▬ early version of a competing product and ended up wiping out a number of files that I needed. It turned out that one of my applications saves files ▬ temporary files. The program assumed that I would not need these files and destroyed them. I must take some responsibility for this mistake, but there are many non-technical users and no

one should be afraid they will mess up their system by using what should be a helpful utility MicroHelp has gone out of its way to save you from yourself. No matter how inexperienced you are, if you follow the online advice, you will not have trouble with this program

UnInstaller 4 also lets you archive programs that you ▬ infrequently. It will compress these files and automatically uncompress them when needed. In the meantime, you have saved ▬ good deal of disk space. This feature is particularly helpful if you ▬ running out of disk space and have lots of programs that you need but seldom use.

Another useful tool is the transfer button, which lets you transfer programs to ▬ second computer. If you primarily ▬ desktop computer, for instance, but want to install programs on your notebook, you transfer the application with UnInstaller. It compresses the program onto ▬ removable medium and then installs ▬ into the second computer This is often prefer-

able to reinstalling from scratch and having to configure the second system the way you want it to be.

Seldom does a program come along that ▬ both powerful and yet so easy to use. The $39.95 price tag is low enough that everyone should have this tool ▬ their system UnInstaller 4 is loaded with features I have not mentioned, ▬ I recommend that you check out ▬ program for yourself. A trial version ▬ available ▬ the Web ▬ *www.microhelp.com*

RESOURCES:

UnInstaller 4, $39.95
MicroHelp Corp.
4211 J.V.L. Industrial Park Dr., NE
Marietta, GA 30066
1-800-777-3322
URL: *www.microhelp.com*

■■■□■■■■ • BY PETER JOHN HARRISON

Power-Up Networking

Fortunately There Are A Range Of Devices You Can Use To Protect Your Computing Environment, Even If You Are On A Tight Budget

1996 was a

bad year for the electrical power industry in California. Early in the year fierce storms lashed at power lines and nearby trees, causing hundreds of lines to go down and blackouts. Then, during the summer, high electrical demand twice overloaded the electrical power grid throughout the West, causing blackouts in California and other western states. In my Newark, California home the power went out at least half a dozen times that I can remember, probably more. I have never had to reset my VCR time clock so many times in a year before.

By now you have probably guessed my point. Our computers all need power in order to work. To them, electricity is their air, water, and sustenance of their activities. The problem is that electrical power from the wall socket is less than 100% dependable, and even a momentary lapse in the supply can cause data loss, corruption, sometimes even hardware damage—a very high price to pay for a few moments of darkness.

Power outages are not the only problem with our computer's food supply. Every day our computers have to deal with variations in their power—"spikes," "surges" and "sags" in the voltage all adversely affect your computer's performance in a variety of subtle and unexplainable ways. Ever turned on an appliance and noticed that the lights dimmed for a moment? These "sags" and the "surges" that occur when the appliance is back off affect the power sup-

plied to our computers, too. Occasionally the power grid itself is the source of a surge. While restoring power after a storm in early 1996, for example, PG&E sent a surge through one San Jose neighborhood powerful enough to blow out the circuitry of household dishwashers and refrigerators. These daily and occasional events, as well as "spikes" caused by lightning strikes can cause your computer to figuratively skip a beat, and literally lock up your system, corrupt data, or fry hardware components.

Worse yet, surges and spikes can also travel across your network and telephone wiring,

spreading to other computers and peripherals connected to your LAN, even when they are switched off. These power supply problems pose a serious threat to your LAN and the data that resides on it. Fortunately there are a range of devices you can use to protect your computing environment, even if you are on a tight budget.

Surge Suppressers

The first of these devices is a simple surge suppresser. Surge suppressers prevent two common power problems, surges and spikes, from damaging your system by supplying it with too much voltage. Their principle of operation is simple: When the voltages being supplied to your computer from your wall socket exceed safe limits, they dump the excess to the ground, the "third prong" on your wall socket.

Surge suppressers are rated by the amount of energy they can "absorb" (pass to ground) without overheating and failing, by their "clamping voltage" that defines the maximum voltage they will pass before passing current to ground, and by how quickly they respond to spikes and surges. Since almost all surge suppressers have more or less acceptable clamping voltage and response time, the thing you really want to look for is their energy absorption rating, the higher the better.

The cheapest surge suppressers dissipate less than a quarter of the energy that high quality units do: 120 joules, sometimes less. Most computer power supplies can handle surges that

APC's "Size-UPS" Web Page will help you calculate the size UPS you need.

Networking continued.

Every day our computers have to deal with variations in their power—"spikes," "surges" and "sags" in the voltage all adversely affect your computer's performance in a variety of subtle and unexplainable ways.

small anyway, so cheap surge suppressers do not do much good. Look for ■ least 220 joule capacity, more if you have power-hungry appliances on the same circuit—like ■ office copier, refrigerator, ■ other large, motor-driven appliances.

Another thing to look for is an indicator light to tell you your surge suppressers are in good working order. On most surge suppressers the light stays on until a large surge ■ spike comes through and burns it out, so check them often, and if one ever does go out, replace it and be relieved that the surge suppresser bit the dust—not the equipment it protects.

Vanilla surge suppresse:s with 220 joule energy absorption ratings cost from about $15 to $40. For ■ few extra bucks you can get a surge suppresser with ■■■ joule or more energy absorption, protection for your telephone line and modem, as well ■ suppression of another power pest electromagnetic and radio frequency interference. Considering the value of the computer equipment and data surge suppressers protect, I think the extra money ■ well worth it.

Uninterruptible Power Supply

Surge suppressers ■■■ great when it comes to protecting your equip ■■■■ from damaging "over voltage" situations, but not from blackouts or sags in line voltage These "under voltage" problems usually do not damage computing hardware, but they can cause data loss, corrup

Solutions

Networking *continued*

Worse yet, surges and spikes can also travel across your network and telephone wiring, spreading to other computers and peripherals connected to your LAN, even when they are switched off.

tion, and system lockups that can also cause problems with other components of your LAN. With many database packages, for example, you ▄▄ corrupt a database if a power sag interrupts ▄ computer "client's" connection to the server while it is updating a database. To protect your computers from these electrical demons you need a UPS, an Uninterruptible Power Supply.

A UPS system provides continuous power by monitoring the line voltage coming from the wall socket. When a surge or spike hits, they ground out the over-voltage, just ▄▄ any surge suppresser does, but when line voltage sags, they switch to internal battery power until the input line voltage returns to acceptable levels. UPS systems are rated by the amount of current they can provide, measured in volt-amperes (VA). The most inexpensive UPS systems, for example, provide about 250VA, enough juice to power a 120MHz Pentium computer and monitor for about five minutes. Faster CPUs use more power and, therefore, ▄ more powerful and expensive UPS. (See the "resources" list accompanying this article for APC's "Size-UPS" Web Page, which will help you calculate the size UPS you need.)

Five minutes is long enough to get you through shorter power interruptions and still provide time to shut your computer down if it looks as if things are going to be dark for more than just a minute or two. That kind of protection does not have to cost a fortune, either. I have two basic 250VA UPS systems on my LAN, one cost me just $60, the other was less than $100.

For those prices you do not get much, just a very basic 250VA UPS. For extra cash you can buy higher VA ratings for longer working times and "smart" interfaces that let the UPS tell the computer it supports when the power has failed. That way advanced operating systems with built-in UPS support software, like NetWare servers, Windows 95, and Windows NT, can shut down and ▄▄ start unattended—a "must have" feature for servers and other "mission-critical" systems. Since UPS batteries wear out every few years, you should also make sure your system's batteries can be replaced. Another really useful feature for a UPS to have is an "alarm disable" feature that turns off the "beep...beep...beep..." noise most UPS systems make when the power fails. There are few things worse once the power goes out than a room full of computer systems, each one of them with a UPS that goes "beep" at a different time.

There ▄▄ tasks that UPS systems can not do. They are not, for example, intended to power your office lights, and off-the-shelf UPS systems do not have enough "oomph" to support devices that use a lot of power, like laser printers.

For my money the best solution for power protection on my LANs is to buy high-powered "smart" UPS systems that can provide at least fifteen minutes of power to each server and "mission critical" system on my LAN. Then, given the fairly low cost of basic UPS systems these days, I suggest buying systems that will supply five minutes of power for

Solutions

Networking continued

Since almost all surge suppressers have more or less acceptable clamping voltage and response time, the thing you really want to look for is their energy absorption rating, the higher the better.

desktop "client" computers on my LAN. It is also a good idea to buy a separate UPS system to support your network hubs and routers for ten minutes. Then, to top it all off, buy surge suppressers for every remaining laptop (which have their own internal batteries) laser printer, modem, and modem line connected to your LAN.

All this just to keep a smooth, steady supply of electricity to our computers may seem like overkill. On the other hand, an extra $60 to protect $1500 of computer and the untold value of the data it manages sounds like a sound investment to me—particularly when the lights start to dim ∎

RESOURCES:

APC's "Size-UPS" Web Page
URL: http://www.apcc.com/english/itool/size/size003.htm

APC
URL: http://www.apc.com/

Deltec
URL: http://www.deltecpower.com/

Fiskars Power Systems
URL: http://www.fiskarsups.com/

TSI Power
URL: http://www.tsipower.com/

SMALL OFFICE/HOME OFFICE • BY BIRRELL WALSH

Getting Intuit

Accounting for Those of Us Who'd Rather Not...

We all need

to keep track of our money. *MicroTimes* has professional accountants who help us with high-level accounting tools. But this month I would like to look at software for money-tracking from a different point of view: that of a reluctant bookkeeper for a small business.

We know that we must do the books. It is by bookkeeping that we know whether we are breaking even or if we are slipping into the Red Sea. It is bookkeeping that lets us know who is buying our products. It is bookkeeping that lets us know where we are spending our dollars.

But we really want to spend our time on other aspects of our businesses. We want to be sure that our products are excellent and that our customers are happy. We want to be planning our future. We want to be doing almost anything except bookkeeping. We are, truth be told, a little intimidated by accounting.

We cannot avoid this work. Either we will do it ourselves, or we will have to hire a bookkeeper or an accountant to do it for us. Before we get someone else in, it is worthwhile trying to make sense of it all for ourselves. We, the somewhat intimidated but game amateurs, are the market Intuit has chosen

I have used Quicken to keep track of a checking account for a long time. It has been so many years, in fact, that I have a DOS version. I had moved it to Windows 3.1, and when Windows 95 came along I moved it to that platform as well, still in a DOS window. It was a simple program to balance the checkbook monthly without major grief.

When I wanted to look at beginner's business accounting software, therefore, I turned again to Intuit, the company which makes Quicken. It appears that I am not the only one who has done so. Quicken has a 79% market share among active users, according to a report from Genesis Research, despite an aggressive campaign by Microsoft to promote a rival product.

What is Intuit's secret? I think it is that their products are comprehensible, incremental and powerful.

Good Old Quicken

Many small businesses still use Quicken, which is now up to version 6. It is suitable for cash-based businesses as well as home financial management.

Having reviewed many products over the years, I have learned that the help files and the tutorials are almost as important for the beginner as the software itself. When you are undertaking a task you may have been avoiding, you have—well, at least I have—a certain testiness. If something is not obvious, it is annoying.

The current version of Quicken for Windows begins its tutorial with the most familiar of financial tools: the checkbook. It recommends that the user begin there, because almost all of us know about checkbooks. The tutorial gives us a familiar place to begin. It lets us be competent right away, which is important in a field where we may feel anxious. And the program's display is designed to support that sense of familiarity. The check register looks like a check register. It has the alternating bands of pale green and beige of a paper register. It is organized across in the same way as a check

continued on page 54

> *Beginning with a familiar and understandable metaphor, **the checkbook**, Quicken extends it incrementally.*

Solutions

Small Office/Home Office continued from page 40

register. It allows us to transfer the skills we have with a paper check book to the computerized version.

We ▪▪▪▪ find that this check register can do more than its paper original could. It can help you reconcile your checkbook with the bank statement. It can print checks (and Quicken will sell you checks for your printer). It can remind you of scheduled payments several days before you should make them.

Still building on the basic checkbook metaphor, Quicken moves out of paper altogether. It will connect with your bank ▪▪▪ you can pay your bills by EFT (electronic funds transfer). It will download your transaction record from your bank, bringing ATM withdrawals into the register. It will compare your record of checks with the bank's record of the same checks, letting you know if there is any disagreement.

All your transactions happen over Intuit's private network, with a PIN number and decent security. You can automate those scheduled payments so that Quicken just pays them for you, without bothering you about it. Of course your bank will charge you some for this service, but it may be worth it to you. Quicken does not charge for its part in the transaction.

Beginning with a familiar and understandable metaphor, the checkbook, Quicken extends it incrementally. First the checkbook helps with reconciliation. Then it helps by reminding you of repeated or scheduled payment due-dates. Finally it connects to an online system and serves as your agent in the banking world. From the easily understood, it moves in small steps to great power.

*Like the Financial Planner, QuickBooks helps you **customize the program through an interview.** It uses the information about your industry to suggest what most users in that business will need in their accounting system.*

When Quicken has you comfortable with its automation of the daily tasks of financial life, it offers planning tools ▪▪ well. One that is of particular use to ▪ small-business operator is a tax-estimator, a mini version of Intuit's TurboTax. With it you can make an educated guess ▪▪▪ your tax liability for the present year. I spotted some tax problems ▪▪▪ away, just by looking at the figures in November. That means I can ▪▪▪ to make (or delay) purchases in the last months of the year for the best tax advantage.

Quicken will also help you create a budget. When I chose "making ▪ budget" I was startled that the program spoke ▪▪ me. It began talking ▪▪▪ through the process immediately, and then told me how to get more information by pressing various icons. If you find this friendly ▪▪▪ annoying you can turn off the voice. But the demonstrations quickly demystify the budgeting process, and help you ▪▪ find features ▪▪▪

might not know about otherwise. It told me, for instance, that I can have certain budget categories monitored, with a report every time I open Quicken. If I ▓▓▓ staying within my budget ▓ shows me that, if not, I get early warning.

If you need to reduce debt, you can plan the process with ▓ debt-reduction account. You can keep track of your various investments with Quicken. You can calculate what it will cost you to assume a mortgage. You can plan for major expenses in the future, including that most major expense, retirement.

I wonder how Intuit provides all these features at such a low price. I suspect that Quicken ▓ is now a "loss leader," a product meant to get you into the Quicken Financial Network. Intuit has created ▓ major Internet-based financial system, and they very much want you to participate. They will let you sign up for their Internet system and

> QuickBooks will do for your company the same thing that Quicken will do for the home: It gives you a handle on your financial information. Beginning with a small and comprehensible example, **it holds your hand while you build exactly the system you need.**

try out their online products for free. You ▓▓ track stocks and mutual funds. You can monitor your credit status, get credit reports on your-self—and find out who else is getting them. You can download stories from financial publications. Soon, I expect, you will be able to buy and sell stock. The electronic checkbook has mutated into a Web-based financial gateway of amazing power through which you can do almost all your financial business.

Quicken Financial Planner

While Quicken ▓ remains the flagship of the fleet, Intuit sells ▓ variety of other tools.

BY ROYAL P. FARROS

The Making Of An Internet Business: Part III

How To Save $1 Million On Your Next Start-up

Most people

who know me know that I'm a "lean-and-mean" guy. I'm from the old school that says the less you spend, the more you'll have. This is contrasted with the "more you spend, the sooner you'll go out of business" school of thought used unknowingly by many new companies in immature markets.

Being lean-and-mean doesn't mean not spending on those things that are important. You have to. What I am saying is that spending intelligently is a continuous rather than a discrete process; since *everything* costs something, you can't turn good spending judgment on and off. At every step you should ask, "What's the most intelligent, lean-and-mean way I can approach this cost?"

If you don't approach spending like you're battling a storm, you'll get soaked. That's a cute way of saying you'll run out of money, whether it's your own or a VC's—*especially* if it's VC money, since spending VC money is foolishly easy to do.

Concept plays are dead. Investors want to ■ Internet companies make money, not blow through it. With this in mind, the next few articles in this series will discuss how iPrint, inc., our Internet Discount Printing & CyberStationery Shop, ■ going to save a million dollars during its start-up phase.

Incorporating

A lawyer will charge you between $2,000 and $3,000 for this. You can go to your favorite bookstore and buy a "How To Incorporate" booklet for about $40.

Okay, so you'll have to pay about $900 in

incorporation and franchise fees and spend a couple of hours reading the booklet and filling out forms. You'll still save ■ good chunk of change *and*, maybe more importantly, be ■ lot smarter ■■ things you really should know.

Tip: If you have any questions while reading the booklet, write them down. I'll tell you how to get free answers in a moment.

Another Tip: Hold off incorporating until a new year if you can. California fees are calendar-based, so if you incorporate in December, the tax man cometh again in January

is to come up with ■ couple of domain names that you can register. Having ■ name—*any* name—is much better than being domain-less. This may cost you an extra $100 or so upfront, but you need to think of this as ■■ investment that could pay off big. (It did for us, as you'll soon see.)

There isn't much of ■ way to save money obtaining a domain name (the InterNIC process, *www.internic.net* , is straightforward and non-negotiable) but there ■ a way to ■ave ■ bundle on getting the trademark.

> Since everything costs something, you can't turn
> good spending judgment on and off.
> At every step you should ask,
> "What's the most intelligent, lean-and-mean way
> I can approach this cost?"

Domain Names And Trademarks

Before we discuss saving money on a trademark, register for your domain name NOW. Did you hesitate? Whoops, too late.

Why the urgency? If you ever thought getting a trademark was bad, getting a domain name is worse. Much worse. There are like four million domain names being requested every four minutes. Okay, I made that up. But the message is still correct. People are sucking up domain names faster than a Hoover on steroids.

Ideally, you'd like your domain name to match your company's name. My advice to you

A law firm will want to charge you about $2,000 to "try" to get you ■ trademark (there's no guarantee that a lawyer can). You ■■■ do it yourself for almost 1/10th that figure, plus about ■ for the book, "Basic Facts About Registering ▚ Trademark" (found at most big bookstores and of course, at *www.amazon.com*).

For something that should be a bureaucratic disaster, we found the process to be almost pleasant. Every single government office, from the US Patent and Trademark Office (Washington D.C., 70330.9000, *www.uspto.gov*) to the IRS, to the Secretary of State, was helpful And, it's your tax dollars ■■ work, so don't be bashful asking these groups for help.

The Making of *continued...*

What To Do If Someone Has The Audacity To Take Your Domain Name

Unless you do something smart and come up with a non-sensical domain name that you really like or are incredibly lucky on par with other Lotto winners, someone else will have already taken your domain name.

If you own the trademark, you theoretically have a chance to duke it out in court with a domain holder. Your chances are pretty good at legal bullying if you've had the trademark for a while. You'll get slammed if you've recently acquired the trademark, since the other company most likely will be able to show "prior use."

Regardless of when you've received the trademark, though, once you've got the trademark, you do have some bargaining power. This situation happened to iPrint. Someone was "inconsiderate" enough to take *our* domain name. Hmpf.

We called the contact name we got from a "Who-Is" search and let them know that we had filed for the trademark that coincided with their domain name, a domain name that we wanted to now use.

Since they were a small company, too, we explained to them that we had another, similar domain name and trademark (good thing we registered for backup names!), and that we would be willing to swap these *and* pay any legitimate legal fees if they would give us back "our" domain name... p-l-e-a-s-e!

> There is a lot more cooperation going on in the Internet world than the media-at-large would have you believe.

Much to our complete surprise, the other company liked our alternate name and in a good-natured, easy-going way, agreed to this. Their understanding not only saved us a lot of money by not having a lawyer draft a huff, puffy intimidation notice, but also demonstrates that there is a lot more cooperation going on in the Internet world than the media-at-large would have you believe.

Tip: Once you file a trademark, file for the international trademarks within six months 'cause you'll save some filing expenses. Unfortunately, you'll need a lawyer for this one, but at least it's something that can be deferred for half a year.

Getting Free Legal Advice

A lawyer friend of mine told me that there's

Brainware.

Give your ShareInteractive PRO a weekly digital life with The Cutting Edge from the Los Angeles Times. Every Monday, our Cyberexperts download new developments in the worlds of computers, telecommunications, electronic entertainment and virtual reality. Columns like Postcard from Cyberspace, PC Focus and Mac Smarts are filled with information to help you learn about the newest software and hardware, and help you find what's hot on the Net.

You'll also find special theme issues throughout the year, including our yearly 18 Telecommunications Trends review of the latest technologies and the future direction of the industry.

But you don't have to wait for Monday to get on The Cutting Edge. Just point your browser to latimes.com or HOMEPAGE.CUTTING for the latest issue of The Cutting Edge. It's more current than your television.

TECH ▪ PALMTOPS • BY MITSU HADEISHI

Windows CE—
Pegasus In Flight

Win95-like Functionality For Palmtops

One of the

big news items at COMDEX this year was Microsoft's announcement of Windows CE, formerly code-named Pegasus. Windows CE is a from-the-ground-up new version of Windows, functionally a stripped-down version of Windows 95 designed for palmtops and other small computing devices, including possibly set-top boxes and other similar consumer hardware.

For palmtops, Windows CE offers a familiar Windows 95-like user interface, built-in versions of "Microsoft Pocket Word" and "Microsoft Pocket Excel," a version of Schedule+ for palmtops, and a number of other utilities and mini-applications. Among these, the most intriguing is support for Web browsing in the form of "Pocket Internet Explorer" which you can install via a serial or infrared link from your desktop machine.

This all sounds like it has a great deal of potential but does the operating system with the rather unfortunate acronym "WinCE" really deliver?

Although a number of manufacturers including Hewlett-Packard, Compaq, Hitachi, Philips and GoldStar have announced Win CE machines, the first bona fide unit to actually ship is the Cassiopeia from Casio, a ▓ package that includes a palmtop with Win CE in ROM, 4MB of RAM, a touch-sensitive, backlit, 480 x 240 four-level greyscale display, a small QWERTY keyboard, a ▓ port with interface cable, an infrared port, a Type II PC Card/PCM-CIA slot which can accept modems and other

PC Cards; a connector for peripherals including things like optional video cameras and other input devices, and two CD-ROMs which contain installation software and demos and free copies of shareware. The palmtop measures approximately 1" ▪ 7" ▪ 4", which is a little on the large side, although it can fit comfortably in an inside jacket pocket.

When the machine starts up, you get the familiar Windows 95-like task bar at the bottom of the screen and icons representing various applications and functions of the machine scattered over your choice of desktop background.

> **Pocket Excel is ▪ credible version of the popular spreadsheet; in addition to the plain-vanilla spreadsheet functionality, the program *includes* support for multiple worksheets,**

Users familiar with Windows ▪ should have little difficulty mastering the interface of this machine; it is very similar, although simplified (actually, Windows ▪ could learn some lessons in ease-of-use from Windows CE). Like most (but not all) Win CE machines, this ▪ uses the Hitachi SL-3 RISC processor.

The built-in applications are full-featured for palmtops, although they don't quite live up to the expectations created by their titles. "Pocket Word" would more accurately be called "Pocket WordPad"—the name gives you the impression of massive word pr power in a handheld, but it

> **so you can *organize* your information more handily into logically separate sheets.**

is not even as powerful as the built-in Windows 95 WordPad applet. It does support multiple fonts and styles, outlining, mixed text and graphics, and justification, so despite its limitations it is one of the more powerful text editing applications in the palmtop world. Unfortunately, the lack of support for even some fairly common word processing features such as headers and footers makes this difficult to use for much more than short business correspondence or letters; it isn't really possible to seriously edit reports ▪ proposals, since they typically involve page numbering at the very least, not to mention more sophisticated features such as tables of contents and/or indexes and so forth. The word processor also does not include a spell checker or thesaurus (unlike its Psion counterpart!).

Another interesting yet purposeful omission from the Win CE operating system ▪ ▪ lack of support for printing directly from the palmtop. By contrast, for example, the Psion series of pocket organizers do allow printing directly from the handheld itself. However, this seems more of a gimmick than a real feature; how many times are you going to be sitting around with just a printer available and your handheld, and ▪ laptop or desktop machine for printing? On the other hand, it might have been nice to include this as ▪ option; for example, the ability ▪ print directly via the infrared port might have been useful. In any case, the inclusion of dubiously-worthwhile printing support would certainly have taken up valuable space on the small RAMdisk available for applications

Business Solutions

Pens & Palmtops continued...

Pocket Excel is a creditable version of the popular spreadsheet. In addition to the plain-vanilla spreadsheet functionality, the program includes support for multiple worksheets, so you can organize your information more handily into logically separate sheets (instead of having to use widely separated areas of the worksheet). Missing from the program is any support for graphing, macros, or hot links between the program and Pocket Word or other applications. However, since these are rarely-used functions in a palmtop, their omission is not serious (although is a point of comparison, the Psion spreadsheet does support graphing).

Psion proponents often cite multitasking as one of its chief advantages; not only can you load multiple applications, you can also run them in parallel. Since Windows CE is a mature operating system with a multitasking kernel, it also supports sophisticated multitasking. In addition, what really makes this work well is the fact that the OS is designed specifically so applications have a very small RAM footprint; this allows you to make the most out of your limited memory. For example, as I type this, in my 4MB machine with 2MB devoted to the RAM disk, leaving only 2MB for the programs themselves to run) I am running a copy of Pocket Word (to edit this column), a copy of Pocket Excel (which I am using to test its features), and an Internet connection (more on this later). I have a couple of other windows open, and a copy of Pocket Internet Explorer version 1.1 beta 1 running in the background, downloading a page from an Internet travel agency.

> The power of *multitasking* on a handheld is considerable; using multiple applications together dramatically increases the *power and convenience* of the unit.

You can switch between applications quickly by tapping on the taskbar at the bottom of the screen, just like in Windows. But, unlike in Windows 95, you tap the same task bar icon again to minimize a running application. (This saves some screen real estate and is typical of the simplifications in the user interface; there is a help button where the minimize icon would normally be.) The power of multitasking on a handheld is considerable; using multiple applications together dramatically increases the power and convenience of the unit.

Synchronization

Of course one of the big advantages of PDAs is their ability to keep your address book, schedule, and to-do lists with you, and the Win CE operating system provides a number of handy ways to do this, including a "Contacts" applet, a Calendar applet, and a "Tasks" applet for handling your to-do list.

Synchronizing your schedule with the desktop is important as well, however, and Win CE includes a number of desktop utilities for this

Pens & Palmtops *continued.*

purpose. The "HPC Explorer" application runs on your desktop machine and allows you to transfer files to and from the palmtop by simply dragging and dropping. In addition, the HPC Explorer will automatically synchronize your schedule, address book, and to-do applications with Schedule+ on your desktop or laptop just by connecting the two machines. In some cases, manufacturers will provide special cradles just like the US Robotics Pilot organizer, which make connecting the machines even simpler.

Like Pocket Word and Pocket Excel, these personal information manager applets are stripped-down, but should suffice for most uses. "Contacts," for example, only allows you to have one address book; there is no easy way to have multiple books. It does, however, have many possible field names, and you can customize the way the records are displayed and sort quickly by field. The to-do list is simple but functional, allowing multiple projects and sorting by any field, as well as multiple priorities

and alarms. The calendar applet has month, week, and day views, and also includes alarms, although it does not seem to be coordinated with the to-do list.

The Portable Internet

Now we come to the most interesting aspect of the system: the power of the Internet in the palm of your hand. Microsoft includes "Pocket Internet Explorer" with the Win CE distribution; it comes on a CD-ROM which you install via a desktop machine connected to your palmtop. Using this browser I was able to connect to a site which had a distribution of the 1.1 beta 1 version of the browser which was a lot faster (I would have written a fairly negative review of the excruciating slowness of Web browsing under Windows CE had I not had a chance to use this beta copy). Even using the 1.1 beta, browsing was rather slow, but I found ■ usable. I checked travel schedules, downloaded some applets, and did some Net searches. The brows-

■ automatically re-scaled the graphics to fit the somewhat non-standard 480-pixel-wide display; despite this, I was surprised to find that most of the pages were quite readable

The browser has a number of limitations. It does not support Java, JavaScript, or frames, and support for the Secure Sockets Layer protocol, which allows secure Internet commerce, is not currently fully functional (it claimed it was not installed and to consult Help, but there was no mention of it in the rather sparse ■ line Help, although the browser's About box indicates RSA-licensed encryption technology). On some large images, it seems to give up loading them before ■ completely finishes displaying the page. Anonymous FTP did not seem to work very well, and there was no news reader support. However, despite these limitations, it is quite a thrill to be able to click through Web pages, graphics and all, on a tiny, ultra portable PDA.

Win CE also includes a pocket version of

Solutions

Pens & Palmtops *continued...*

Microsoft's Inbox email software. It can be configured to leave the messages on the Internet POP3 server and/or download the messages and remove them, so you can use the Inbox to "peek" into your mailbox but leave the mail or it can be permanently downloaded into your desktop or laptop machine. Like Microsoft's desktop Inbox, there is no good support for message filtering, a significant drawback on desktop machines for heavy email users like myself (I get enough email that using filters I can essentially remove unwanted messages by sorting email from people I know, which leaves most unfiltered messages as junk email), but not that important for a palmtop, since I tend to use the smaller machines for only temporary email access.

The biggest problem with the Inbox is the apparent lack of support for attachments. Another omission is the fact that the built-in Pocket Word applet does not support file conversions to and from standard formats like RTF unless you use the desktop file transfer application (unlike the Psion word processor which can both export and import RTF files directly). Thus, trying to compose a document on the handheld and then emailing it directly to a colleague is not very easy, particularly since the built-in Terminal application also does not have any documented way of uploading binary files either, so you cannot even get around this problem by using XModem or ZModem. Presumably these problems can be fixed by third-party

> Microsoft includes "Pocket Internet Explorer" with the Win CE distribution; it comes on a CD-ROM which you install via a desktop machine connected to your palmtop.

vendors, but it seems a rather shocking and unnecessary omission in otherwise robust Internet support.

Psion's Web Entry

However, the thunder of Microsoft's palmtop Web browsing and email functionality has been reduced, if not actually stolen a bit by Psion's recent announcement of an Internet Web browsing application for their popular Psion 3a and 3c palmtops. I have not yet had a chance to test this Web and email program, but they claim it will be released shortly and retail for about $50.

Psion has so far been able to keep ahead of the palmtop game through constant updates to its clean multitasking palmtop operating system and applications, but the competition from Windows CE has to have them a bit worried. Not only does Win CE have a functional Web browser, but most Win CE machines are based on high-tech RISC processors that can execute one instruction per clock cycle, getting performance as high as a low-end Pentium. The Psion palmtops, by contrast, are powered by less sophisticated and somewhat slower processors, so it remains to be seen how well they will stack up for relatively heavy-duty applications such as Web browsing.

In addition, the Win CE architecture is fully 32-bit and portable,

The Tenth Annual MicroTimes One Hundred

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O ver the ten years we've been compiling these lists, we've seen ■ lot of comings and goings reflecting change in the industry. On page 130, we list the names of those we recognized in the first MicroTimes 100 in January 1986. In that year, ■ll Gates shared Man of the Year honors with Apple's John Sculley—their fortunes have diverged a bit since then. ● To no one's great surprise, 1996 was dominated, per- haps even more than its predecessors, by the Microsoft-Intel hegemony; also ■ no one's great surprise, this fact only spurred Bill Gates and Andy Grove to more serious endeavors. Meanwhile, the business press faction that seems to regard Apple's mere existence as offen- sive had tons o' fun outdoing each other ■ predictions of doom; to the considerable relief of the Macintosh community, Apple refused to oblige these factions by dying. ■ If the desktop OS wars were ■ bit one-sided, it was ■ different story ■ the online world. Microsoft's browser failed to make much of a dent in Netscape's business; Microsoft's online service failed to annihilate (or even seriously trouble) industry leader AOL, though both MSN and AOL found themselves struggling with flat-rate competition from local ISPs. Meanwhile, while the full-blown snake oil intoxication of the Internet Business Boom abated somewhat, hopeful throngs quit their jobs and started companies in hopes of making their fortunes on the Web. ● Ten years from now, some of the folks on this list will occupy places of honor in the new version, and others will have vanished without a ■are. It's not entirely out of the question that some long-lost denizen of the first list will return, either. ● We especially appreciate the nominations we've received from our readers this year. Amid the pointers to cool folks, we encountered the occasional poignant moment—one guy, for example, nominated Gary Kildall, whose like we will indeed not see again, despite the fact that Gary passed away in 1994. Another sent in a plaintive op■ letter to departed Novell CEO Robert Frankenberg lamenting the sad state of the company in general and WordPerfect in particular—without any apparent recognition that Frankenberg's troubles could pretty much be laid at the door of predecessor Ray Noorda's Beat-Microsoft-By-Buying-Companies strategy of years past. ■ As always, compiling this year's list has been ■ exhausting and enlightening experience. We hope you find the results interesting and that some of you ■ moved to go out ■■ perform feats of your own in the year to come!

—eds.

Scott Adams
Cartoonist
www.unitedmedia.com/comics/dilbert

Although Dilbert books are now actually being adopted as part of the curriculum in manage- ment classes, Adams is far from co-opted. In ■ prolific assortment of books and cartoons, he continues to earn the undying gratitude of working stiffs everywhere as he pillories the high-tech workplace's failure to get kinder and gentler, or even less stupid

Art Afshar
President
Micro Express
http://www.upages.com/microexpress/meback.htm

In the fiercely competitive PC marketplace, Afshar's kept Irvine-based Micro Express well- positioned with regard to its pricier rivals. Using Cyrix's CPUs to deliver high performance for low cost, he's enabled the budget-conscious ■ achieve high-end productivity with award-win- ning systems.

Paul ■llin
Chairman
The Paul Allen Group
www.cardtech.com/about/ pag.htm

Not unlike Japanese e n t r e p r e n e u r Masayoshi Son, Allen is a highly influential investor in multiple arenas. It's statistically unlikely that the Microsoft co-founder will ever replicate the suc- cess of his first startup, but it's not for lack of working at it—he's sole owner of companies ranging from Interval Research to Ticketmaster to the Portland Trail Blazers, and he's a partner

in DreamWorks SKG. His investments fuel some promising emerging companies that are poised to provide key technical and entertainment components of wired future.

Jill ■■■■
President
Total Clearance
www.totalclear.com

As individuals and companies rush to put "con- tent" on the Internet, one result is ■■ escala- tion of litigation and saber-rattling over intel- lectual property—especially misappropriation of copyrighted material Amid the hostilities, Alofs offers ■ better way, facilitating negotia- tions so that win-win deals can ■■ created to benefit all parties

Gilbert Amelio
Chairman and CEO
Apple Computer
www.apple.com

The Doctor ■■■ in as Amelio took over the ailing and flounder- ing Apple and amazed all and sundry by restoring it to profitability by year's end He's still got a for- midable task ahead, particularly with regard to the company's infinitely varied OS strategy, but having kept Apple independent and viable this long is an achievement that flies ■ the face of the conventional wisdom of a year ago.

Brian Apgar
Founder
Mpath
www.mpath.com

One of our readers sings the praises of ■p■■ for leaving the world of supercomputing ■■d deliv-

ering "multiplayer twitch games to the home with just a Pentium. 14.4, and an ISP!"

Mpath's Mplayer service is one of the Web's premier gaming destinations, allowing dialup users to match skills with thousands of live opponents, to say nothing of offering voice and ■■■ chat options for the less combat-minded.

Carol ■■■■
Chairman, President, CEO
Autodesk
www.autodesk.com

Bartz has effectively maintained the lead- ership position of the company's flagship product AutoCAD while simultaneously developing and strengthening its multimedia products. As ever-more powerful Pentium-based worksta- tions become available, 3D Studio and its suite of relatives offer an increasingly popular alternative for multimedia development and virtual worlds.

■■■ Benhamou
Chairman ■■■ CEO
3COM
■■■ 3com.com

The networking world has changed dramati- cally ■ the time Benhamou's been at the helm of 3COM, and he's shown the ability to keep ■ on track ■ the face ■ numer- ous paradigm shifts. Some commentators have credited him as the main impediment to Cisco's campaign to become the Intel of the Internet.

PERFORMANCE & VALUE

WT INTERNET
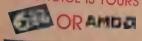
Intel 100MHz PENTIUM CPU
Triton II VX, Plug & Play
256K Pipeline Burst Cache
16MB EDO RAM
1.6GB Enhanced-IDE HDD
PCI Enhanced-IDE Controller
1.44MB Floppy Drive
64-Bit PCI MPEG 2MB EDO
14" SVGA-NI .28dp Color Monitor
28.8K V34 Int. Fax/Modem
8X Speed IDE CD-ROM
16Bit Wavetable Sound Card
HI-FI 120W Speakers
30 CD-Titles, Hi-Res Mouse
Mid-Tower Case
104 Win95 Keyboard
Microsoft Win95 CD Included

$1099

P133MHz $1199   P166MHz $1399
P200MHz $1549

WT GRAPHIC

Intel 200MHz PENTIUM CPU
Triton II VX, Plug & Play BIOS
512K Pipeline Burst Cache
32MB EDO RAM
3GB Enhanced-IDE HDD
PCI Enhanced-IDE Controller
1.44MB Floppy Drive
Diamond Stealth 3D PCI 64-Bit PCI
15" SVGA-NI .28dp Color Monitor
33.6K V34 Int. Voice Fax/Modem
12X Speed IDE CD-ROM
Sound Blaster Bit Wavetable
HI-FI 120W Speakers
CD-Titles, MS-Mouse
Mid-Tower Case
Keytronic Win95 Keyboard
Microsoft Win95 CD Included

$1998

P166MHz $1899   P133MHz $1649

WT PRO NT STATION

Intel 180MHz PENTIUM CPU
Intel Pentium PRO Chipset
Plug & Play BIOS
256K L2 Cache
32MB Fast RAM
2GB Enhanced-IDE HDD
PCI Enhanced-IDE Controller
HI-Speed 16550 UART, ECP/EPP Port
1.44MB Floppy Drive
Diamond Stealth 3D 4MB EDO
12X Speed IDE CD-ROM
ATX Super Mid-Tower Case
Microsoft Serial Mouse
Keytronic 104 Keyboard
Microsoft NT 4.0 Workstation

$1699

Pentium PRO-200 $2199

UPGRADE PRO NT STATION:
2GB Fast-Wide SCSI HDD
Adaptec 2940 Ultra-Wide SCSI
$345

AMS TRAVELPRO 2000

Intel Pentium 150MHz
Support Up Intel 200MHz CPU
16KB Int - 512KB SRAM -L2
32Bit PCI - Plug & Play
16MB EDO, 80MB Max.
2MB VRAM, 1024x768
13.3" XGA (Active Matrix)
2.1GB IDE HDD, 1.44MB FDD
10X Int. CD-ROM, 16Bit Wavetable
33.6K Int. F/M, Lithium Ion Battery
6.3LBS, 12"W x 9.6"D x1.9"H
Microsoft Windows 95 Includ
3Year - Parts and Labor

13.3" Display

$4285.

UPGRADE: TravelPro 2000
Lithium Ion Battery
Mini Port Replicator

AMS TRAVEL PRO 100 S

Multimedia CD Notebook
Intel Pentium Base CPU
PCI Local Bus, Triton Chipset
Fast RAM Exp To 48MB
16K Int 256K Ext Cache
16Bit DSS Built-In Speakers
1.44MB Floppy Drive
Minh Battery, Support Lithium Batteri
Microsoft Windows 95 CD
3Year - Parts and Labor

Pentium-120MHz, 1GB HDD
16MB RAM, 12.1" SVGA Dual Scan
$1785.

Pentium-133MHz, 1.3GB HDD
16MB RAM, 12.1" SVGA Dual Scan
$1849.

Pentium-150MHz, 2.1GB HDD
32MB RAM, 12.1" SVGA
UPGRADE: TravelPro 100C S
10X CD-ROM Add
Battery
12.1" Active Matrix Add

GRAND OPENING DEC 48

██ ██ █████
CEO
Amazon.com
www.amazon.com

Bezos' brainstorm of the Internet bookstore-cum-hangout is one of the few spectacular success stories of Web-based business. He shrewdly found one of the sweet spots where the technology allowed benefits difficult to achieve otherwise—a "catalog" of 1.1 million book titles, constantly changing editorial content and support for personalization and customer input have resulted in fanatical loyalty and explosive growth.

Jim Bidzos
President
RSA Data Security
www.rsa.com

As encryption technology becomes a mainstream product thanks to the demands of Internet commerce, RSA's fortunes continue to rise. While industry groups and governmental bodies grapple with the seemingly insoluble problem of secure privacy protection that law enforcement's willing to allow, Bidzos is one of the most outspoken advocates for robust encryption.

Wesley Boyd
Chairman
Julie Wainwright
CEO
Berkeley Systems
www.berksys.com

Shaping up to be an entertainment powerhouse, the Berkeley Systems folks successfully managed to diversify their product offerings and expand into the online world during 1996, proving that they indeed Know Jack. Their wildly successful quiz-show game You Don't Know Jack racked up sales and awards all year, spawning multiple add-ons and showing some promise of matching the popularity of stablemate After Dark. Meanwhile, the Flying Toasters expanded into new territory with new versions of the perennial screensaver, including an Internet-based version.

Jeff Braun
Chairman
Maxis
www.maxis.com

Sims here, Sims there.

Sims, Sims everywhere. On islands. In helicopters. Lest there should be any doubt, Braun has conclusively demonstrated that there's a viable business in world-building, and that a more intelligent alternative to twitch games is no passing fad.

██████ ██████████
Judge
US District Court, Alexandria, VA
www.eff.org/pub/Censorship/CoS+the-Net/rtc_v_lerma_091595_hearing.transcript

In her landmark decision *Religious Technology Center v. Lerma*, Judge Brinkema neatly skewered the pretensions of both sides in this particular skirmish between the Church of Scientology and critics with a penchant for posting L. Ron Hubbard's secret writings to the Internet. Her written comments offer a clearly-reasoned assessment of intellectual property issues as they're affected by Internet distribution.

████ Caldwell
President
Computer Software Industry Association
http://www.webcom.com/software/issues/1kayec.html

Caldwell is an influential and hard-working advocate for software industry interests in legislative and policy issues, including patent, copyright and trademark matters. She currently serves as president of the Computer Software Industry Association, in addition to key roles in other organizations including the Software Forum.

Doug ██████████
Chairman and CEO
Brøderbund Software
www.broder.com

With consolidation of home-market software companies in full force and the delay of the Myst sequel, 1996 was a challenging year for Brøderbund on some fronts, but Carlston managed a few triumphs anyway, and some notable acquisitions. Although he lost the bidding war for The Learning Company to SoftKey in late 1995, he did hire away most of its key personnel at the earliest available opportunity and rechristen them Brøderbund's educational software division. Brøderbund also made a foray into the

Internet ████ by making RealAudio publisher Progressive Networks an affiliated label.

█████ █ ████
Chairman and CEO
America Online
www.aol.com

For all Case's publicly-expressed worry about the bundled Microsoft Network offering unfair competition with AOL, MSN turned out to be about as dangerous as the now-deceased eWorld. The threat ████ from another quarter entirely—flat-rate ISPs offering consumers all the Net they could use for a low fixed fee had caused AOL's whole hourly-rate-based business model to collapse by year end, causing a turn a reduction in the number of content providers (compensated, of course, by a percentage of hourly revenues based on traffic) on the service.

Still, with CompuServe's market share dwindling and Prodigy all but off the map, Case maintains his uncanny ability to adapt to market changes, keeping AOL in the undisputed leadership position among commercial online services.

█████ ██████████
President and CEO
Cisco Systems
██████████

Whatever information you're accessing or work you're producing on the Internet, it's probably passing through a lot of Cisco hardware. Chambers has ably kept Cisco well ahead of its competitors in the networking world, prompting frequent comparison to Intel's dominance of the PC world. He's kept up with the changing demands of the Internet explosion with an aggressive campaign of acquisitions, and shows no sign of slowing down.

Ronald Chwang
President and CEO
Acer America
http://www.acer.com/aac

As the Taiwanese multinational company celebrated its twentieth year of business, Chwang further strengthened the position of its US operation, continuing to push for technical excellence and improving access and distribution channels.

▓▓ ▓▓▓▓
Chairman
Jim Barksdale
CEO
▓▓▓▓ Andreessen
Senior VP of Technology
Netscape Communications
www.netscape.com

Particularly after 1995's notoriously lucrative IPO, pundits were all but pulling up lawnchairs to await the demise of Netscape, either crushed by the giant Microsoft's belated interest in the Internet or shattered ▓▓ the rocks of marketplace realities. Given the combination of Clark's vision, Barksdale's strategic and management skills, and Andreessen's technical strength, though, Netscape has managed to stay profitable, mutate to address a changing market, and develop useful alliances.

A classic example is Netscape's leadership in the emerging corporate intranet department, which had next to nothing to do with the company's initial Web-publishing strategy and now is well on its way to effectively removing once-proud Novell from the networking landscape.
Bud Colligan
Chairman
▓▓▓ Burgess
President and CEO
Macromedia
http://www.macromedia.com/macromedia/

After years of floundering, Macromedia has come into its own ▓▓ recent months under these executives' effective leadership. They've positioned the company well to take advantage of Web-based multimedia ▓▓ developers rush to implement their Shockwave technology, and a year-end alliance with Marimba promised further Java-based delights.
Scott Cook
Chairman
Bill Campbell
President and CEO
Intuit
www.intuit.com

Cook and Campbell have kept Intuit at the forefront of personal finance software with Quicken, MacinTax, TurboTax, etc. Taking advantage of the Internet boom, they now stand poised to offer online consumers newer and better services with the Quicken Financial Network, a full-service endeavor that allows customers not only to write checks online but also to plan for retirement, apply for loans, and trade stocks.

▓▓▓ and ▓▓▓▓▓
Davidson
Founder and
President/Chairman
and CEO
Davidson &
Associates
http://www.davd.com/
We've almost come to take it for granted that the Davidsons will continue to deliver ever-better educational software, and once again they did not disappoint us. They also deserve particular good-citizenship commendation for a million-dollar software donation to the Los Angeles County Office of Education.

Sky Dayton
Founder/Chairman
Earthlink
www.earthlink.net
In two years Earthlink has expanded from a three-person startup to a global ISP. Against formidable odds, the twentysomething Dayton has effectively led the company, hired capable management to deal with its growing pains, and found the time and resources to help out with community projects like NetDay.
▓▓▓ Decrem
Executive Director
Plugged In
http://www.pluggedin.org
Decrem and his staff have earned well-deserved kudos for their achievements at Plugged In. Not only have they rounded up an enviable group of corporate sponsors to contribute resources and expertise to this computer skills center in East Palo Alto, but they've taken the center's work far beyond feel-good photo opportunity—the Web skills acquired by local youths become the foundation for companies they set up to sell those services to highly receptive local businesses.
▓▓▓ Dilworth
President and CEO
Metricom
www.metricom.com
Dilworth has successfully implemented afford-

able, tetherless Internet access with Metricom's Ricochet service, which utilizes unlicensed-spectrum wireless technology. The service ▓ rapidly expanding, with the Bay Area now well covered and Washington, DC now up and running.
John Doerr
Partner
Kleiner Perkins
Caufield and Byers
www.kpcb.com
Dubbed "the Internet's sugar daddy" by *Upside*, Doerr has shepherded countless companies through their growing pains over the years and is instrumental in the investment of KPCB's latest $100 million fund earmarked for Internet startups. He's one of the leading drivers of Java development.

▓▓▓▓ ▓▓ ▓▓▓▓▓▓
Author
http://www.earthlink.net/discontinuity
Not content with columns, radio shows, TV shows, and a veritable publishing empire of computer books. Dvorak took his trademarked expertise and attitude to the Web. Discontinuity, his foray into Web publishing with fellow author Jerry Pournelle, found the authors holding forth on a variety of subjects, quite unfettered by editors.
Esther Dyson
President
EDventure Holdings
www.edventure.com
In her role as advisor to the industry's movers and shakers for two decades, Dyson shapes the evolution of companies and creates useful synergies. In her role as chair of the Electronic Frontier Foundation, she uses her influence and practical expertise to shape more enlightened governmental policies toward the Internet.
Michael Eisner
Chairman and CEO
The Walt Disney Company
www.disney.com
Eisner has transformed Disney into a media

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giant undreamed of by the Sorcerer's Apprentice in his most hubristic moments, absorbing movie and broadcast companies with aplomb and moving into software development. With new technical wizardry (e.g. the Massively Parallel Danny Hillis, late of Thinking Machines, and Alan Kay, late of Apple and Xerox PARC) on staff, Eisner's clearly planning to broaden the horizons of the Magic Kingdom still further.

▬▬ ▬▬
President
Auto-By-Tel
www.auto-by-tel.com

For most Americans, shopping for a new car is about as much fun as a trip to the dentist or an IRS audit—no sooner does the hapless consumer show up on the lot. In most cases, than he is besieged by a glad-handing sales rep bent on obscuring information and arranging a deal optimized for his own financial benefit.

To his everlasting credit, Ellis saw this as a problem rather than an ideal, and realized that the Web offered a better solution. The result is the wildly popular Auto-By-Tel, where you can research your prospective vehicle in archived reviews and spec sheets, get dealer pricing information, and best of all, submit a detailed description of the car you're looking for and receive firm price quotes from participating dealers, all without pushy guys with loud ties.

Larry Ellison
Chairman and CEO
Oracle Corp.
www.oracle.com

Not that it's insignificant to have kept Oracle comfortably unchallenged at the top of the database heap yet again, but Ellison's most noteworthy achievement in 1996 involved the actual appeance of Network Computers, an idea for which he'd been lobbying for several years. It remains to be seen whether the NCs become the Websurfers best friend or yet another cleverly disguised version of the mainframe terminal, but they stand to become an important access method as more and more companies go online.

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Joseph Firmage
Chairman, CEO, President
USWeb
www.usweb.com

With investments from Ziff-Davis and Softbank, the youthful Firmage has built an explosively growing company from scratch in less than a year. Recognizing that Web presence is becoming as essential to many businesses ▬ phones and fax machines, and also that most businesses are intimidated into paralysis at the whole prospect, he's created ▬ national network of affiliated service bureaus to address the specialized needs of various clients while fostering an ongoing ▬lationship as the Web evolves.

John Gage
Director, Science Office
Sun Microsystems
www.sun.com

In the course of a distinguished career, Gage has had any number of noteworthy achievements, but for the foreseeable future he's probably best known for spearheading NetDay96, a statewide barnraising in which thousands of volunteers wired hundreds of California schools for Internet access. The event drew a Presidential photo op and spawned a nationwide event in the fall, and further exploits are planned for the 1997 version later this year.

Jean-Louis Gassée
CEO
Be
www.be.com

Ousted from Apple, Gassée risked it all to start Be, a company devoted to developing a next-generation platform. A year ago Be was a company with promising technology in search of a market; by the end of '96 it was in negotiations with Apple to make BeOS the next Macintosh system software, the chief stumbling block being price. Meanwhile, not waiting for Cupertino's blessing, Mac cloner Power Computing announced that it would begin shipping all its machines with both Be and Mac operating systems in early 1997.

▬▬ Gates
Chairman and CEO
Microsoft
www.microsoft.com

Intuit, Netscape, and the lackluster fortunes of the Microsoft Network stand (for the moment, anyway) as proofs that is is possible to compete successfully with Bill Gates. But Gates remains relentless and unfettered in his plans for greater conquests—despite Win95's apparently secure position in the "nobody ever got fired for buying..." niche, he's lured some of the industry's best talent to work on product development, and hinted at future directions in the content world with the launch of the online magazine Slate and the cable channel MSNBC.

Louis Gerstner
Chairman and CEO
IBM
www.ibm.com

Gerstner has confounded those who pronounced IBM on its way out, having restored Big Blue's health and put it once more on the path to growth. While it's extremely questionable that OS/2 will ever attain its once-envisioned potential, ▬ other fronts (including the Lotus Notes technology and emerging Internet opportunities) the company's doing nicely, and the Olympics in Atlanta furnished numerous opportunities to showcase its products to a national audience.

Besides, we have to thank somebody for IBM's outstanding series of "Solutions for a Small Planet" TV commercials, which do an exemplary job of presenting the benefits of technology in an accurate and engaging manner. May they go ▬ forever.

George Gilder
Columnist
Forbes ASAP
www.discovery.org/gildweb.html

An early evangelist for the notion of what he calls Telecosm, an intensively telecommunications-linked world, Gilder has attained guru status in the industry. He's also an effective proponent of spread-spectrum technology as an enabler of secure and affordable wireless connectivity.

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▰▰ Glaser
CEO and Founder
Progressive Networks
www.prognet.com

In one of the industry's better preemptive moves, Glaser had his RealAudio technology entrenched as a standard all over the Net before the competition woke up to the situation. With continuous enhancements, alliances, and opening of offices around the world, he continues to keep RealAudio dominant and open new opportunities.

▰▰ Goldhaber
President and CEO
CyberGold
www.cybergold.com

Years ago Goldhaber founded TOPS, which pioneered the idea of networks linking PCs, Macs, and UNIX machines. Now he's got an even more radical idea, and he's joined forces with PR czar Regis McKenna and advertising wizard Jay Chiat to make it a reality.

Like a lot of Internet hopefuls, Goldhaber's planning to make money selling online ads, but in contrast to the time-honored practice of covertly luring consumers within viewing range of the clients ads, CyberGold's going to pay users to read ads very closely matched to their stated interests. Advertisers get exposure to an audience likely to become customers, and customers flock to the site in search of both informational and financial rewards.

Laura Groppe
President
Girl Games
www.grlgames.com

Groppe left a successful career as an assistant director and producer in Hollywood (her credits include the Oscar winning dramatic short "Session Man" and four MTV Awards for coproducing "Everybody Hurts") to develop the notoriously untapped market of Software For Girls. Her first release, the CD-ROM/online hybrid Let's Talk About Me, is selling nicely, next up a software series based on TV's Sabrina The Teenage Witch.

Bill Gross
Chairman
idealab!
www.idealab.com

Gross founded Knowledge Adventure and dedicated it to

fostering ▰ enjoyment of learning. It's become one of the titans of educational software, and now Gross has spun off idealab! to start Internet businesses, taking advantage of highly customized niche markets. It's currently incubating a number of companies from tiny infants ▰ the relatively mature CitySearch, including IdeaMarket, which allows individuals to commercially publish content.

Andy Grove
President and CEO
Intel
www.intel.com

With Intel enjoying record prosperity and its challengers in the CPU marketplace subdued these days, Grove remains a relentless foe of complacency, combining a demand for technical excellence with a shrewd appreciation for emerging markets and joint ventures.

Chris Hassett
President and CEO
PointCast
▰ pointcast com

Devising a creative and attractively user-driven solution to information overload, Hassett pioneered the notion of feeding advertiser-supported news stories from major services. Readers select the type of stories they want popping up onscreen, and advertisers are assured of reaching ▰ audience in their desired marketplace.

Johan Helsingius
Administrator
anon.penet.fi

While clearly subject to any number of ▰ accesses, the ability to speak anonymously ▰ often valuable, and Helsingius' remailer service in Finland, which allowed untraceable email and posting to Usenet groups, has long been regarded as a bastion of this freedom. In late 1996 Helsingius shut down the service after a year ▰ which he'd been sued by the Church of Scientology ▰ reveal a user's identity and falsely accused by the British press of distributing child pornography. Having reached the conclusion ▰ under Finnish law he probably would ▰ ▰ able to ▰▰▰▰ his users' anonymity he decided ▰ stop putting them at ▰ Many ▰▰ applaud his work ▰ mourn the demise of the remailer.

▰▰▰▰ ▰▰▰▰
Principals
Project ▰▰▰
www2000 ogsm vanderbilt edu

Some of the initial hysteria has abated in the rush to the Internet, and now hordes of hopeful entrepreneurs are trying to figure out viable business models, particularly those that pertain to online advertising. Wife-and-husband team Hoffman and Novak apply rigorous analysis to Internet demographics and offer advice as to pitfalls and promising business models.

▰▰▰▰ Hughes
Managing Partner
Old Colorado City Communications

While testing wireless networks in distance-learning applications in rural Colorado and deploying intrepid teams to bring remote areas of Mongolia online using more of the same, Hughes also worked tirelessly to educate regulators about the potential of free wireless networks, utilizing unlicensed areas of the radio spectrum, to deliver Internet connectivity at rates far lower than phone company offerings. He's been equally zealous in campaigns to keep the unlicensed spectrum unlicensed and open to all, and to foster the development of more effective spread-spectrum technology to utilize it more effectively.

Terry Hui
President and Chief Executive Officer
Maximizer Technologies, Inc.
http://www.maximizer.com

A youthful entrepreneur with a track record of investing wealthy Hong Kong families' money in Canadian real estate, Hui is forging into the information age with ventures ranging from a fiber-optic-connected planned community to a Java startup Xense. After acquiring Maximizer a software company specializing in sales force automation, he capitalized its successful competition in both the PC- and mainframe-based markets, and drove the development of its first Internet-based contact management software.

▰▰▰▰ Hundt
Chairman
Federal
Communications
Commission
▰▰▰ fcc ▰▰▰

One of Hundt's major accomplishments in

1996 was contributing to the passage of the long-awaited Telecommunications Reform Act, which significantly changed the playing fields upon which telcos, cablecos, broadcast networks and others are struggling for position, and incidentally included the probably-unconstitutional Communications Decency Act. As with many of Hundt's endeavors, opinions vary widely as to whether the resulting law was more a curse or blessing for the future of the Net, but he's garnered respect among warring constituencies for fair-mindedness and comprehension of the issues.

Tim Jenison

NewTek

Chairman and Founder

www.newtek.com

In years past, Jenison's Video Toaster has been credited with keeping the Amiga alive in the face of Commodore's best efforts to kill it off. Notwithstanding the apparent failure of that effort, Jenison's successfully kept NewTek at the forefront of the multimedia tools world with continually enhanced and multiplatform versions of the Toaster, Lightwave 3D, and more.

John Jennings

Chairman and CEO

Keith Black

President and Director

Window On Wall Street

http://www.wallstreet.net

Software engineers Jennings and Black joined forces in 1991 to develop what would become the award-winning Window on Wall Street software. Since then they've expanded their line of investment software products, helping to educate their customers and make it easier for them to exploit the opportunities of Internet-based financial services.

Tom Jermoluk

Chairman and CEO

@Home Network

www.home.com

In sheer shock waves through the hallways at Silicon Graphics when Jermoluk was lured from the presidency to the helm of @Home. Energetic and onthe pioneer cable-based Internet service a reality, and plans to use its speedy delivery capabilities to woo demanding consumers of online content

■■■■ ■■■

Chairman and CEO

NeXT; Pixar

www.pixar.com

After founding Apple and cajoling, cheerleading, bribing and browbeating the Macintosh into existence, Jobs hoped to achieve similar success with the sleek workstations and OS of NeXT. Even Jobs couldn't make the NeXT story go quite his way, but years later he's surprised early cynics by redefining the company's mission in ways that keep it viable.

Meanwhile, having acquired Pixar back when Hollywood was using plastic models, Jobs looked positively prescient as the company rode *Toy Story's* success to booming business in the entertainment industry.

Tony ■■■■■■

Bebo ■■■■■

Stanford Linear Accelelerator Center

http://www.6conf.slac.stanford.edu/

In 1992 staff physicist Johnson heard a presentation by Tim Berners-Lee and immediately realized the potential of the World Wide Web. One result ■■■■ that Johnson, White, and the SLAC staff put up the first WWW site in North America. They're still very active in Web-related ■■■■■ and will be hosting the 6th International World Wide Web Conference next April 7-11 at the Santa Clara Convention Center.

■■■ ■ ■ Jones

Founder

Pan World Technologies

http://www.netvista.net/~pwt/

While Jones' new Web site-design business has garnered such noteworthy clients as the Grammy Awards and ReMax Real Estate, he's been recommended to us for his commitment to building and maintaining Web sites for nonprofit organizations that otherwise couldn't afford them. Beneficiaries so far include the National Breast Cancer Research Foundation, The National Prostate Foundation, and The Gold Medal Foundation, ■■ working in areas of cancer research.

Brewster Kahle

President

Internet Archives

www.archive ■■

Kahle's last appearance ■■ the MT ■■ was ■■ years ago, ■■ inventor and architect of WAIS, a remote search and retrieval resource for networks. Since then, the Internet has exploded and search tools have multiplied. Moving from the question of finding something in the huge amounts of information on the Net, Kahle turned his attention to the next question archiving—gathering and storing—the data ■■ the Internet. Kahle has established a nonprofit trust to manage and provide access to the archives themselves while he and his colleagues at Internet Archives develop and refine the software for managing terabytes of data

■■■■■■ ■■■■■■

Chairman and CEO

Power Computing

www.powercc.com

Pioneering the first of the Macintosh-compatible computer lines, Kahng used his expertise in the PC clone business to deliver low-cost, user-customizable systems to eager users ■■ Power. After ■ very successful year selling MacOS hardware, he showed himself to be ■■ ■■ cloner by announcing that Power would soon begin shipping dual-OS machines with both Mac and Be software.

Jerry ■■■■■■

CEO

Onsale

www.onsale.com

When we interviewed Kaplan for our cover in mid-1995, the newly-launched Onsale ■■■■ pioneering online auctions for merchandise ranging from fine ■■■■ and collectibles to remaindered printers.

Unsurprisingly, some of these product lines worked a lot better than others, but Kaplan refined the concept and created ■ successful business with the combination of game show and bargain hunting. The watches and cabernets ■■■ long gone, but the auction format remains, as subscribers receive weekly lists of irresistible deals with invitations to bid—and flock ■■ the site, charge cards in hand, spending millions per month and keeping Onsale growing and profitable

Guy Kawasaki

Apple Fellow

Apple Computer

http://www.evangelist.

"There has been no other individual who has done so much for the Macintosh community," a Santa

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Monica reader says unequivocally, and it's hard to argue the point. As Gilbert Amelio dealt with difficulties on the corporate side and Heidi Roizen mended fences with beleaguered Apple developers, it was Kawasaki who kept the home fires burning in the hearts and minds of Macintosh users. The EvangeList mail list offered the latest in anti-Windows humor, hot discount deals, and ways of warding off the Wintel designs of one's MIS manager

Michael Kinsley
Editor
Slate
www.slate.com

Former *New Republic* editor and CNN commentator Kinsley stirred major excitement when he accepted Bill Gates's offer over Time Warner's and became the editor of Slate. "Real" journalism, it was said, had finally come to the Web. Months later, Kinsley has found his path strewn with the same road hazards that beset other online publishers, but still holds out hope of getting readers to pay for the privilege of reading Slate. Meanwhile, as we go to press he's still offering high-quality articles on the site for free and maintaining journalistic integrity with regard to his boss.

Brenda Laurel
Researcher
Interval Research
www.interval.com

For years interface expert Laurel has criticized the distinctly unnatural ways in which we attempt to get computers to do our bidding, and has been engaged in numerous hush-hush projects at Interval trying, no doubt, to figure out a better approach. Now that Interval's spun off three software companies to develop actual product, we may start seeing the results of Laurel's work.

Laura Lemay
Author
http://www.███.com/Web/

A number of readers positively insisted that Lemay be included in this year's list in gratitude for her popular and much-recommended Teach Yourself HTML series. Says Paul Kamen, one of her legion of fans "Her books have made it relatively painless for lots of us to dive into Web publishing—and her online accessibility is exemplary."

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Wyatt Leung
President
Chinese Software Professionals Association
http://www.aimnet.com/~cspa

By day, Leung works at Broadvision ██ an interactive services engineer. The rest of the time he's a tireless worker for CSPA, lining up speakers and recruiting volunteers to help the bright young Asian and non-Asian would-be entrepreneurs of Silicon Valley succeed. He's built CSPA into valuable resource, with a signal-to-noise ratio that's the envy of other groups.

James Liggins
Founder
Inner City Computer Society

South Central Los Angeles has benefited from resident Liggins's efforts to show his neighbors the benefits of technology. The group he founded has brought training classes and Internet savvy to local artists and business, giving the community ██ vibrant online presence, and has recently produced a training video for further outreach.

Gilman Louie
Chairman
Spectrum Holobyte
http://www.microprose.com/

After a scary round of financial troubles brought on by overdiversification, Louie's company is once again

profitable and focusing on PC based games With exclusive rights ██ develop titles based on the blockbuster Star Trek movie *First Contact*, the prospects for continued fun and profit abound

██ Lynch
Investor
www.cybercash.com

Considerably ahead of the pack, Lynch recognized the importance of open standards in getting disparate networks to talk to each other, and also that making it easy for networks to work together was about to be a very big deal. He parlayed this insight into the now-huge Interop conference and trade show. With the large pile of cash resulting from selling Interop to Softbank, he's invested in an interesting range ██ startups, ██ having something to do with Internet-based commerce. He serves as chairman of CyberCash, one of a number of companies offering secure payment options to online consumers; other investments range from the Women's Wire online service to PGP

Inc., ██ startup devoted to the long-overdue task of making Pretty Good Privacy encryption software easy for mere humans to use.

████ ████
Cofounder
Firefly
███ firefly.com

MIT Media Lab professor Maes is one of the developers of Firefly's agent technology, which uses artificial intelligence methods to compile and compare a database of user preferences With the ability to serve increasingly individualized niche markets being one of the most promising Web-enabled business opportunities publishers, providers, and advertisers are hoping to use Firefly's technology to improve their signal-to-noise ratio.

Michael McConnell
Chairman, President and CEO
Visioneer
www.visioneer.com

McConnell has kept Visioneer on the fast track, parlaying ██ initial concept of low-cost scanners into a varied and constantly improving array of PaperPorts. The devices became a favorite of large and small offices, as people discovered the usefulness of getting paper documents into their computers and being able to work with them as digital files.

██ McCracken
Chairman and CEO
Silicon Graphics
www.sgi.com

1996 was an unusually trying year for McCracken, what with an unprecedented

brain drain of the technical talent to Web startups and Pentium workstations making inroads into the low end of SGI's traditional markets Nonetheless, he kept pushing the envelope ██ graphics capability and expanded into some promising ██████ markets, ██ Nintendo ██ introduced SGI technology ██ ██ consumer audience.

████ McNealy
Chairman, President, CEO
Sun Microsystems
www.sun.com

The Internet boom gives ████ credence to McNealy's oft-repeated "The Network Is the Computer," and he's

helped Sun take advantage of the emerging opportunities, from the ever-increasing demand for powerful hardware to move those bytes to the proliferation of Java-based multimedia and business applets.

In what stands to become one of the industry's most hotly debated what-ifs, Sun reported to have almost bought Apple during the latter's most scary days in early '96. The negotiations reputedly collapsed over price; for the rest of the year in good times and bad, Apple's stock price du jour was regularly compared to Sun's offer amid glee or hand-wringing.

███ Meeks
Author
CyberWire Dispatch
http://cyberwire.com:70/1/cyberwire

By day, Meeks is the Washington Bureau Chief for *Interactive Week*, but his labor of love and popular claim to fame is CyberWire Dispatch, which he describes as "an electronic broadsheet that covers issues relevant to the loosely defined community of 'cyberspace.' Everything from privacy to encryption to uncovering Cyberscams," Bulldog reporter Meeks uncovers the dirt and often scoops the world on subjects ranging from bogus online gangstas to Beltway skulduggery.

Ken Nesbitt
Founder
Nesbitt Software
http://www.nesbitt.com/

Nesbitt was brought to our attention by a reader who's a happy user of his WebEdit software. On visiting his Web site, we find a sterling example of an Internet-based business with a human face—in addition to the usual product info, for instance, there are engaging bios of Nesbitt and the other members of his four-person company, from which we learn, for example, that Nesbitt wrote WebEdit while traveling around Europe (more info about the trip just a click away and is occasionally inspired to write goofy children's verse (examples thoughtfully provided).

Jeannie Novak
Founder
Kaleidospace
http://kspace.com

Novak founded Kaleidospace on January 1st 1994 as an online promotion and distribution source for independent music and film. Today her site features the work of ██████ independent artists, musicians, writers, performers, CD-ROM authors, filmmakers, anima-

tors and software developers, and has spotlighted artists including singer Tom Jones, musician Thomas Dolby, horror writer Clive Barker, and sci-fi author Dr. David Brin.

Novak augments the site with other work aimed at helping creative types make good use of the Internet in reaching new audiences—her new book *Creating Internet Entertainment* offers tips for effective use of the new in presenting artistic work, and her *Reign of Fire* CD-ROM release includes a link to the Web site for further info.

Enthuses one of her employees: "In our somewhat biased opinion here at Kspace, Jeannie is truly an 'unsung' hero. She is one of the very few people who has managed to run a self-funded, profitable Internet-based content-only business for almost three years. In a largely male-dominated field she is a role model for other women using the Internet, and she provided the first introduction to the potential of the Internet to literally thousands of people in the arts and entertainment industry."

Sameer Parekh
President
Community ConneXion
http://www.c2.org

Parekh won the thanks of a grateful online populace by staunchly holding the line against the notion that ISPs should police the activities of their users. In the face of pressure from groups as varied as the Church of Scientology and the Simon Wiesenthal Center (to say nothing of an incredibly over-the-top and hastily-withdrawn "contributory copyright infringement" lawsuit from the Software Publishers Association because Community ConneXion refused to track and remove hypothetical links from user Web pages to pirate sites), Parekh politely but firmly stood by his policy of respecting his customers' privacy and freedom on the Net.

Steve Perlman
President, CEO and CTO
WebTV Networks
███ webtv.net

Perlman cofounded WebTV to develop its innovative approach to Internet access—an all-inone combination of set-top box and Internet account that allows customers to access Web pages on their television sets. An array of investors from Citibank to Microsoft to Times Mirror, with ████ of ████ for Web-marketable stuff waiting in the wings are hoping he can get consumers to ████ to Netsurfing as naturally as they take to channel surfing.

███ Pesce
Co-creator, VRML
(Virtual Reality Modeling Language)
www.hyperreal.com/~mpesce/

Combining his skills ██ networking and graphics with co-inventor Tony Parisi's talents in computer languages and Silicon Graphics' Open Inventor, a C++ graphic library that describes 3-D objects and environments. Pesce is the co-creator and the most prominent evangelist for VRML—Virtual Reality Modeling Language. Following good Internet tradition, VRML is a cross-platform, open standard that allows you to describe 3-D objects and combine them to build interactive worlds online—in other words, adding a sense of "place" to cyberspace.

Eckhard Pfeiffer
President and CEO
Compaq
www.compaq.com

Despite the low margins of a ruthlessly competitive hardware marketplace, Pfeiffer's managed to keep Compaq profitable and well ahead of the pack in sales. His ability to run the company efficiently under constantly changing conditions has kept it prosperous while some of its once-formidable competitors are awash in red ink.

Lew Platt
Chairman and CEO
Hewlett-Packard
www.hp.com

Sadly, 1996 saw the passing of HP cofounder and chairman emeritus David Packard, but it also demonstrated that he'd left the company in the hands of a worthy steward. Once again under Platt's leadership, the company excelled in printers, networking, workstations—and treating people like human beings.

Kim ██████
CEO
Marimba
www.marimba.com

The 28-year-old Polese, a former product manager at Sun

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joined forces with three engineers from the original Java team to create this startup. They garnered headlines ██ the recipient of a $4 million first round of investment last summer and are now hard at work on Castanet, a key software component in the delivery of Net-based applications and multimedia.

██████ Price
Coordinator
Richmond Adult School, West Contra Costa Unified School District
www.wccusd.K12.ca.us

"Please include Sandy in your MicroTimes 100 list of worthy souls!" writes Cynthia Baxter of San Pablo. "Here's her picture!"

We're happy to oblige with ██ hearty round of applause for Price, who's attentive to the job-training needs of her adult students in a generally disadvantaged area. Says Baxter, one of the school's instructors, "She not only tries to accommodate her computer instructors by providing materials and up-to-date equipment, but she also is very concerned that the students who take our classes are 100% satisfied with their instructors and classes."

Gary ██████
Partner
Wilson, Sonsini, Goodrich and Rosati
www.wsgr.com
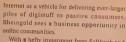
There is much variance of opinion as to the particular merits of Reback's antitrust suits, which tend to have a recurring theme of Reback as Picard to Microsoft's Borg. However, there's no doubt that his high-tech clients from Apple to Netscape have found him a tenacious advocate ██ their attempts to resist assimilation over the years, and his persistence has occasionally resulted in governmental scrutiny of some of Microsoft's reputedly anticompetitive business practices.

Howard Rheingold
Co-founder
Electric Minds
www.minds.com

██ he points out in his much-broadcast Kinko's commercial, Rheingold wrote the book on virtual community. It stands to reason, therefore, that ██ content providers view the

Internet as a vehicle for delivering ever-larger piles of digistuff to passive consumers, Rheingold sees ██ business opportunity in online communities.

With ██ hefty investment from Softbank and sponsorships from the likes of Harper Collins and US West, he's recently launched Electric Minds, a Web-based system that includes articles, conferencing, and virtual worlds—the idea being that, as the French discovered years ago with Minitel, there's a surprising amount of money to be made by making it easier for people to find and talk to each other.

Jack ██████
Editor
Boardwatch
www.boardwatch.com

Once the Bible of the BBS world, Rickard's inimitable magazine has both driven and benefited from the Internet explosion. One result is the mutation of his annual OneBBSCon conference into the considerably larger OneISPCon, which last year finally came to San Francisco after outgrowing its last two venues.

████ Roizen
VP of Developer Relations
Apple Computer
www.apple.com

Somewhere during the turbulence of 1996 some member of a developer mail list dubbed Roizen "the canary in Apple's coal mine," her presence ██ indicator of non life-threatening conditions. Charged with a key aspect of the company's viability, she's well qualified for the job of restoring the crucial and once-symbiotic relationship between Apple and the companies who write software for its platforms—her former company, T/Maker, was closely involved with the Mac from its earliest days; her expertise at running a software company is widely acknowledged; and she's a former president of the Software Publishers Association with a personal appreciation of developer problems.

Louis Rossetto
Editor and Publisher
Wired
██ wired.com

No doubt about it, Rossetto is the czar of

high-tech chutzpah, and it's a crowded field. Even his forceful personality couldn't persuade Wall Street to overlook a dismal bottom line and embrace Wired's IPO, with the result that the planned event was canceled. Twice. Despite this relatively minor contretemps, however, he's enthusiastically building on the success of the print version of Wired to launch new ventures, from online publications like HotWired to books and TV shows, which deliver some of the more interesting information out there.

████ ██████
Principal
Technologic Partners

Shaffer's conferences remain the premier matchmaking venue for entrepreneurs and investors, delivering panel discussions among industry luminaries and unparalleled schmoozing and networking opportunities. In addition, he publishes two investment-oriented newsletters providing shrewd analysis and early heads-ups about the Next Big Thing and the companies poised to take advantage of it.

Chuck Shotton
Quarterdeck Fellow
Quarterdeck
www.starnine.com

Shotton was the author of MacHTTP, which Quarterdeck subsequently acquired, enhanced, and sold ██ WebSTAR. In the interim Shotton remains the principal author of the software that allows Macs to be Web servers, and oversaw the recent release of the much-enhanced version 2.0.

Dolores Sloviter
Chief Judge
Ronald Buckwalter
Stewart Dalzell
Judges
US Court of Appeal, Third Circuit
www.microtimes.com/aclu_vs_reno.html

As we go to press, the Supreme Court has agreed to review the judges' decision in ACLU ██ Reno, which blocked implementation of the Communications Decency Act provisions of the Telecommunications Reform in response to a suit brought by industry, civil libertarians and other groups. We hope that the Supreme side with the judges, but in the meantime we

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join many others in our appreciation of the judges' clear grasp of the issues and excellent turn of phrase, e.g. Dalzell's "..the Internet may fairly be regarded as a never-ending worldwide conversation. The Government may not, through the CDA, interrupt that conversation. As the most participatory form of mass speech yet developed, the Internet deserves the highest protection from government intrusion."

Masayoshi ▇▇▇
President and CEO
Softbank Companies
www.sbexpos.com

If Microsoft's forays into the publishing world have observers worried about editorial objectivity and conflict of interest, Son's unabated shopping spree must surely be giving them migraines. Hardware and software companies, publications, and trade shows continue to be absorbed into the Softbank empire, and Softbank Ventures is a key investor in promising Internet startups. Despite expressed fears, however, Son is showing little tendency to turn Ziff-Davis Publishing into an in-house propaganda engine and seems to be thinking far more complex and grandiose thoughts.

▇▇▇ Susser
President and Founder
GoldMine Software
http://www.goldminesw.com

Susser's GoldMine contact management software has evolved from a LAN-based alternative to mainframe systems to an award-winning Windows 95 full-featured version with Internet capabilities. In the process, the company he founded in 1989 has doubled in revenues each year since. The software boasts a user base that includes the White House and Disney Worldwide. We're pleased to salute him for finding a need and filling it, and then continuing to manage the company effectively through its evolution—all without a dime of venture capital.

Linus Benedict Torvalds
Linux
Author
▇▇▇.cdry.org/ac cr/comp/os/linu./people.▇▇▇sound/
linux.su

For some years Torvalds' free UNIX clone software has won the gratitude of budget-minded PC users, but the explosive growth of the Web has increased demand for its capabilities

among site operators. Fortunately, Torvalds obliged with the long-awaited enhancements of version 2.0.

John R. Walter
Former President and CEO
R. R. Donnelley & Sons
President and COO
AT&T
http://www.rrdonnelley.com/
http://www.att.com

Walter, who left publishing giant Donnelley for the president's job at AT&T in the fall, worked his way from sales trainee to president over a 20-year period and ▇ credited with making the company more efficient, installing effective management, and leading ▇ to new prosperity and new frontiers. Reader Andrew Cheung of San Gabriel praises Walter for transforming the company from ▇ largely ink-on-paper business to a strong presence in electronic publishing.

John Warnock
Chairman and CEO
Adobe
www.adobe.▇▇▇

Adobe cofounder Warnock has successfully managed the company through paradigm shifts from laser printer to Web page, all the while earning a reputation for vision and high ethical standards. While he's got his work cut out for him keeping Adobe's technology symbiotic with the Internet's evolution, he's been equal to formidable challenges in the past.

Jim Warren
Columnist

Jim was last seen acquiring a catamaran and making vague noises about returning the the columnist's grind one of these days. We join with appreciative readers in hoping it's sooner rather than later. As reader Steve Steinbrecher put it, his "undying and unselfish efforts for online access to government information to keep the public informed about important issues that affect us all, as well as his GovAccess listserver, are surely missed."

Philip White
Chairman, President and CEO
Informix
www.informix.com

With Sybase currently lagging in the database wars, White has risen admirably to the demanding role of Chief Thorn In Larry Ellison's Side. He scored major points at year's end when Informix proudly shipped the long-awaited Informix Universal Server, offering multimedia and other diverse data handling capabilities that, for the moment, eclipsed anything Oracle had to offer.

▇▇▇ Winblad
General Partner
Hummer Winblad
Venture Partners
www.humwin.com

A successful entrepreneur herself and co-founder of the first software-only VC fund, Winblad is one of the most sought-after advisors for start-up companies. In an industry often inundated with snake oil, she offers pragmatic insight that cuts through wishful thinking to deliver deals that work.

Marcos H. Woehrmann
▇▇▇ Hessenflow
Cofounders
Handmade Software
http://www.handmadesw.com

A self-described "Diehard Alchemy Fan" by the name of Pat urged us to honor these guys for their invaluable work alleviating the headaches of graphics format conversion. Says Pat: "Handmade Software makes Image Alchemy, an image conversion utility that does more formats than any other one I have found, and it runs on PCs, Mac, OS/2 and all flavors of UNIX. I use it to RIP files for my NovaJet plotter and to make JPEGs and GIFs for the Web. I do GIS and Satellite Imagery and their product was the only one I could find that would do the formats I needed and run on all the different kinds of computers we have at my work. We have Macs and SGI Indys; Alchemy makes it easy to move my XWD files to PICTs on the Mac."

He adds: "Their product ▇ great, but the real nice thing about them ▇ that they have always been very friendly and helpful if I ▇ stuck and needed tech support. This ▇ one great 'local' company that could really use some recognition for their cross-platform support."

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Online Guide

INTERNET • BY JOHN S. QUARTERMAN

Anonymity On The Net:
The Last Days of *anon.penet.fi*

If you work

for a government agency or a large corporation and want to report improprieties without losing your job, how do you do it? What if you're a university staffer who wants to complain about university policies? Or if you're a boot camp instructor who sees sexual abuse?

One way is to use an anonymous remailer on the Internet. This is an Internet node that takes your message, replaces any references to you with an anonymous ID, and remails the message to whomever you addressed it. People can reply to your message like any other message. The reply goes back to the anonymous remailer, which looks up your anonymous ID in its carefully protected database, and forwards the reply to you. It's not foolproof, but when done well it can be pretty secure and very useful

The Raid

In March 1995 a mild-mannered Finnish hacker was profiled in *Newsweek*. Julf Helsingius was widely known in the UNIX and Internet communities even before he started *anon.penet.fi*, the most popular anonymous remailer on the Internet, but he was unknown to the general public. Unknown, that is, until police arrived at his door and gave him a choice of revealing the identity of a single user or handing over his entire database of the identities of all anonymous users of his system.

Who was this person whose identity the police wanted? Someone who had posted to public Internet forums materials that the Church of Scientology (CoS) alleged infringed its copyrights. Neither the accuser nor the person they sought were in Finland. The long arm of US and international law had reached across the Atlantic to knock on Julf's door.

It was somewhat ironic that it should be a CoS complaint that led to the raid. Anonymous remailers had pretty much been driven out of the US earlier because of fears that they would be used for any number of purposes disliked by various parties, ranging from child molestation to whistle blowing. Actually, they are usually used by people who feel they can't speak their minds otherwise. In wealthy, civilized, compla-

cent Finland there were fewer fears, and *anon.penet.fi* operated unmolested for years.

Julf wasn't the only one shocked that a raid like that could even happen in Finland. But it did. I don't know what you would have done, but I suspect I would have done what Julf did: Give them the one identity in order to protect all the rest (half a million of them), and then sue

> **Anonymous remailers had pretty much been driven out of the US because of fears that they would be used for any number of purposes disliked by various parties, ranging from child molestation to whistle blowing.**
> **Actually, they are usually used by people who feel they can't speak their minds otherwise.**

After the raid, Julf set up mail aliases for those for and against anonymity. Hundreds were for, and only seven were against. In his usual responsible manner, he moved to deal with the few cases of abuse indicated by those seven letters, also noting that there was already a policy in place to first warn, then block abusers, even though only a fraction of a percent of users were abusers.

Internet *continued...*

The End

The worst was yet to come. On August 30, 1996, Julf shut down *anon.penet.fi*. Exactly why, only he knows for sure. But there were plenty of reasons.

The *London Observer* (http://scallywag.com/) accused him of being a middleman in the distribution of child pornography. That accusation was, of course, false, ■■ investigated and attested by Finnish police. Julf has said that that baseless accusation was not the reason for the shutdown.

The real reason was that a Finnish court had made a preliminary decision that privacy remailers could be violated by court order. He is rewriting his software and will probably bring the system back up in some form at least for limited access by public interest groups. But its old form seems likely to remain dead, unless an appeal against the court ruling succeeds.

It is worth pointing out, in case you didn't know, that Finland is the opposite of a backwater on the Internet. Finland and Iceland have been neck-and-neck for years in pursuit of most Internet hosts per capita. No other country has passed them. For comparison, the United States usually comes in around #8. What happens in Finland matters to the Internet.

Nor is Julf ■■ unknown, even though you may not have heard of him before. For many years he has been active in the Finnish UNIX systems Users Group and the European UNIX systems Users Group, which were two of the main sources of the UUCP network and then the Internet in Finland and Europe. He has been at times their liaison with similar groups else-where, such as in the US. He is technically astute, having started and maintained one of the earliest UNIX and networking companies ■ Finland. He is currently participating in new working projects organized by the Ministries of Communications and Finance of Finland. In short, he ■ one of the people who built the Internet. This man is ■ pillar of the communit If he can be attacked, any of us can.

Other Remailers

While *anon.penet.fi* was the most popular remailer worldwide, it was no longer the only one when it closed. For example, there are the cypherpunks remailers. You can reach their operation by electronic mail ■ *remailer-operators@c2.org*. These are slightly different from Julf's remailer, in tha they don't keep a database mapping anonymous IDs back to re

> **Helsingius is one of the people who built the Internet.**
>
> **This man is a pillar of the community. If he ▢▢▢ be ATTACKED, any of us can.**

Internet *continued*

addresses; they just sanitize the mail message and send it on, with a From address such as:

+ From: nobody@cypherpunkx.ca
(John Anonymous MacDonald) =

This is not as useful ■ facility for carrying on conversations, because you can't respond to the sender.

Personally, I have to admit to being prejudiced against this kind of anonymous remailer, because the only personal experience I've had with it was not particularly constructive. MIDS conducts various research into the structure of the Internet, such as the MIDS Internet Weather Report (*http://www.mids.org/weather/*). That particular report uses *ping,* ■ program that uses ICMP ECHO to determine roundtrip time to

send a ping and get an echo back. Even that occasionally (about one time out of 100,000) gets a complaint, harmless ■ it is.
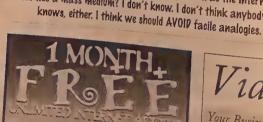
Lately we've also been using *traceroute* to look at the large structure of the Internet. That program sends several packets on several UDP ports. An inexperienced system administrator can easily mistake a traceroute for a cracker scanning all ports. This mistake is made more likely by off-the-shelf firewall software that simply reports "UDP scan" without recognizing the nature of the scan. Now, very occasionally (again, about one time out of 100,000), we get a complaint about this.

Most people complain in the obvious manner, by sending a mail message to *postmaster*

@*mids.org* , or to one of our domain ████ (me, for example), or by calling us on the phone. That's the way such things are ████ ly done on the Internet, and we talk about everything ■ resolved to everyone's satisfaction

But now and then some newbie ████ administrator is convinced that any ████ traffic they don't recognize is a cracking ████ and instead of sending a civil complaint by ████ mal channels, sends ■ threat through ██ ████ mous remailer. Childish. Irresponsible ██████ harmless, because anybody who unde████ the Internet little enough to do that is p████ not capable of carrying out any threats. But ██ tainly not constructive, particularly ████ through ■ remailer that doesn't support re ██ ██

Last time this happened I ████ administrator of that remailer to ████ further traffic through it to ███ ████ administrator immediately did █ ████ that even though most traffic ████ their remailer was benign, they d████

> Will anonymous remailers become a problem as the Internet becomes a mass medium? I don't know. I don't think anybody else knows, either. I think we should AVOID facile analogies.

addresses; they just sanitize the mail message and send it on, with ■ From address such as:

> + From: *nobody@cypherpunks.ca*
> *(John Anonymous MacDonald)* ■

This is not as useful a facility for carrying on conversations, because you can't respond to the sender.

Personally, I have to admit to being prejudiced against this kind of anonymous remailer, because the only personal experience I've had with it was not particularly constructive. MIDS conducts various research into the structure of

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@mids.org , or to one of our domain contacts (me, for example), or by calling ■ on the telephone. That's the way such things are traditionally done on the Internet, and we talk about it, and everything is resolved to everyone's satisfaction.

But now and then some newbie system administrator is convinced that any incoming traffic they don't recognize is a cracking attempt, and instead of sending a civil complaint by normal channels, sends ■ threat through an anonymous remailer. Childish. Irresponsible. Probably harmless, because anybody who understands the Internet little enough to do that is probably

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want any dissatisfied users or recipients. You can't get more civil than that.

Personally, I support the existence of anonymous remailers because I support diversity in the Internet. A healthy ecology is a complex ecology. I want anonymous remailers to continue for the same reason I want thousands of potato varieties to be preserved in Peru: You never know when we might need them.

Anonymity: Good or Evil?

Is there a larger problem than that? I've seen claims that anonymous remailers are used for libel, hate mail, and any number of other calumnies. I haven't personally seen many instances of such use. I do recognize that such remailers could easily be used like that.

In the Internet as it has been, few people would so use them. In the Internet that is rapidly absorbing most of the world, the percentage of nutcases and sociopaths may remain a small percentage, but will grow larger as an absolute

number. As we have seen by the increase of spam in the last year or so, it only takes a few idiots to pollute lots of mailboxes.

Will anonymous remailers become a problem as the Internet becomes a mass medium? I don't know. I don't think anybody else knows, either.

I think we should avoid facile analogies. Some people argue that because traditional edited publications wouldn't publish a letter to the editor without knowing the source, that anonymous Internet mail should not be permitted. Well, the Internet is not a traditional medium, nor even a single medium, as a US District Court has recently spelled out so eloquently *(http://www.mids.org/609/phila.html)*. Anyone can send anonymous postcards or letters through the paper postal services, and I don't see anyone moving to ban that.
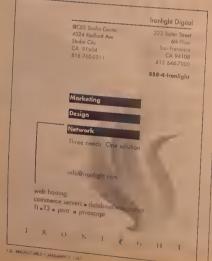
In addition, claims that "the number of incidents is increasing" aren't very specific, and hardly count as evidence. For that matter, in the mailing lists I frequent, I have seen zero

instances of abusive anonymous messages. This may be because most of those lists are now closed, i.e., only members of such a list can send mail to the list. Most of them were closed to prevent spam, but the same mechanism just as effectively keeps out anonymous messages. So spam has, ironically enough, lessened the potential effect of abuse of anonymous remailers.

I do know that Julf is trying to organize a task force on practical problems of ethics and civil rights in the use of networks. He is reachable as:

Johan Helsingius
Oy Penetic Ab
+358 0400 2605
julf@penet.fi

Web Page Listings

COMPUTER PRODUCTS & SERVICES

1-888-CD Movies Plus http://www.cdmovies.com/ Browse our VideoCD /MPEG catalog movies, music videos, kids, sports, adult, and more. Also, the latest in entertainment technology [Exp. #161.]

ACP Superstore http://www.cyberswap.com We offer computer swapmeets, an auction house for computers and electronics, a closeout warehouse, and specials. [Exp. #160.]

Acutrack http://www.acutrack.com Acutrack is a turnkey software duplication company specializing in CD and diskette duplication [Exp #160.]

Alternative Resources Corp. http://www.alrc.com Project-based national corporation specializing in large, state-of-the-art desktop and networking technical opportunities [Exp #161]

American Photo Syndicate http://www.american-photo.com/ Thousands of Web-sized photos Supermodels, movie stars, fashion, cars earthquake, and more [Exp #160]

Autospec http://www.cruzio.com/~autospec/ Relevant detailed conceptual access to media, markets and selections using site-filter vocabularies—BIG pictures [Exp #162]

Barnabas Consultant's http://www.barnacon Computer/LAN maintenance [Exp #160]

Blue Planet http://www.blueplanet.com Your source for audio, storage solutions including CD-ROM optical hard drives and laptop drives [Exp #162]

Cartridge One http://www.cartridge1.com all cartridge specialists New technology for all cartridges [Exp #160.]

CCI http://www.ccesucompter.com Southern Cal

forma-based data processing and system integrator specializing in personal computers, hardware, and software [Exp #162.]

Cloud Dragon Design http://www.cddesign.com Digital Dragon I Ching program available for evaluation A new interface to Book of Changes [Exp #162.]

Components Direct http://www.componentsdirect.com Your source for memory and hard drives at the lowest prices [Exp #160.]

Compulopia http://www.hicomputopia.com [Exp #162.]

Cyber Plaza USA http://usa.cplaza.or.jp NEC's Cyber Plaza features a weekly column by Ken McCarthy on business and technological developments in Silicon Valley [Exp #162.]

Digital Production Services http://www.accessone.com/digital Video production, Avid training, rental, and support. [Exp #162.]

Donovan Distribution Co. http://shall.com/donovan/ Power Protection products buy, sell trade rent, and repair Uninterruptible Power Systems [Exp #161.]

EIB Home And Building Automation http://www.euba.com/home_frm.html EIB The Contemporary Open Building Management System—an open multivendor multipurpose communication platform [Exp #161]

Electronic Components Sourcing Guide http://www.electrobase.com A comprehensive sourcing guide for electronics components [Exp #162.]

Exponential Software http://www.hooked.net/~exponent Looking for a quotation or a commission software? Visit our Web site [Exp #160.]

Fringe Ryder's http://fringeweb.com/Lap Laptop computers reference, see your LA products, and more [Exp #160.]

Gazillionaire Deluxe Shareware http://www

http://www.lungusa.org

http://www.artcommotion.com/

http://www.rbpage.com

gazillionaire.com/download.html [Exp #161.]

HD Computer Co. http://www.netcom.com/~mike quichag.html Provides PC Mac outgoing service [Exp #161]

HiTek Solutions, Computer Education Centers http://www.hiteksolution.com/ Novell and Microsoft certification training providers (714)474-8776 [Exp #161]

HP's Interactive Broadband Program http://www.hp.com/info/Dutch Burst This new Web site up-to-date information Hewlett-Packard's Interactive Broadband Program [Exp #160]

Infiniium http://home.link.net/~ifslaser Printer tax cartridges surplus [Exp #160.]

Internet Telephone Kit http://www.perfectmedia.com Low-cost

munications anywhere in the world computer-to-computer [Exp #161]

JDC's House Of CD-ROM http://www.houseorom.com/houseorom/ We buy, sell, trade, and rent new and used CD-ROM, M-PEG titles and Playstation CDs [Exp #160.]

John Torres Company, Inc. http://www.accounting software.com The world's leading provider of Windows and NT-based SOL accounting information systems for middle-market businesses. [Exp #160.]

Kerry's Software Testing http://www.crl.com/~zallar/ testing html Reference page for links related to software testing and software quality assurance [Exp #162.]

macintoshos.com http://www.macintoshos.com An online destination for Mac users Shareware, support live chat, classifieds, and more [Exp #161.]

MacSite Weekly http://www.geocities.com/Silicon Valley/9249/ The enthusiast's source for good news, reviews, hot tips, and useful links [Exp #162.]

Master Wizard's World http://members.aol.com/MstrWzrd Where you'll find a whole world of computing from software to networks, POS to POP [Exp #162.]

Disk Service http://home.earthlink.net/~save data Data recovery for all operating systems and storage [Exp #162.]

NutriGenie http://users.sol.com/nutrisolt running nutrition software publisher Download software from Web site [Exp #160]

One Stop Computer Source http://www.siliconel.com PC systems, memory, PCMCIA, and more. [Exp #160]

Opcode Systems http://www.opcode.com/ Opcode Systems a leading manufacturer of music software and hardware completely redesigned its Web site [Exp #162.]

PC Guardian http://www.pcguardian.com/ A leading developer of computer security, encryption, data protection, and workstation control and security products [Exp #160.]

Pragmatic Communications http://www.wirelessperts An innovator in wireless communications voice, data, and video applications [Exp #160.]

RTG Systems http://www.rtgsoftware.com Features RTG Bills, a low-cost Windows-based legal time billing program for small legal firms [Exp #161]

Francisco Adkel http://www.sfadnet.com The Bay Area online advertiser Advertise now super low prices [Exp #151.]

Software Age http://www.softwareage.com A free electronic information source for software users and software industry [Exp #160.]

Software Outlet http://www.softwareoutlet.com A mail order company specializing in low-cost software Call 1-800-230-SOFT for a free catalog [Exp #161.]

Stick-ups Popup Note Software http://www.stick-ups.com Unload a free trial of the quickest and easiest way to jot down and keep track of important information [Exp #161.]

TLC—Tech Logic Computer http://www.thaprobe.com/sub_page/techlogic Computers, services, repairs and more [Exp #161.]

Today Computers http://www.tdy.pc.com We provide custom configurations for PCs Network too Novell, Windows NT, and Windows 95 (WFW) [Exp #160]

Transinternational Co. Ltd. http://www.transinternational.com name of many Systems Amiga support [Exp #162.]

TRUC Computer http://www.uc Sales service upgrades parts and systems at a discount [Exp #161.]

Unicom http://www.via.net/~unicom New PCs and Web pages for sale. [Exp #160.]

Vivid Details http://www.vividdetails.com High-quality, royalty-free photographs. [Exp #160.]

Voilant Software http://members.aol.com/gvoltant Download an evaluation copy of WinImage 3.0, ■ disk utility that enables users to make a disk image from a floppy [Exp #161.]

Windswept Shareware http://ourworld.compuserve.com/homepages/gregdebacker Choose from a selection of shareware games and utilities for Windows [Exp #161]

WorkLink—ADA Solutions http://www.worklink.net Applive computer products and devices—DragonDictate (talk to your PC), RSI products, ergonomic workstations, and more. [Exp #161]

WEB/INTERNET SERVICES

World Of Classifieds http://www.byl.com/ads/ Classified ads from A to Z. Free posting offer. [Exp #162]

A a Z Consulting, Inc. http://www.azc.com/Web/ Internet services [Exp #161]

Accesspoint Internet Service http://www.apc.net Offering affordable dial-up accounts. Web page design, Web site hosting ■ business automation services. [Exp #160]

Aden Mall http://www.aden.com Internet shopping and advertising service ■ ■ ■ [Exp #160]

Adgrafix http://www.ad.grafix.com/ ■ ■ ■ ■ ■ ■ Provides inexpensive Web ■ ■ ■ and design. [Exp #161]

Advent Media http://www.adventmedia.com Professional, affordable Web development, including page design, graphic art, CGI programming and

Apple PI Web Designs http://mpb.com/salesworn/ Providing high-quality Web designs with a personal touch. [Exp #160.]

Bay Area Shopper's Corner http://www.readysetnet.com Advertise your business ■ the Internet Free business listings available. Web site design [Exp #162.]

Bayshore Information Services http://adpages.com/bayinfo How to promote your business, products, or service on the Internet. Free software. [Exp #160.]

Bytelines http://www.nook.ed.net/users/naliordr Specializing in creating, designing, editing, layout and installation of Web sites—big and small. [Exp #160.]

Carpe Diem Communications http://www.webon.com Providing outstanding Web site design, programming, hosting, and maintenance at competitive rates [Exp #160]

CDsmedia http://cdsmedia.com Full service presence provider with in-house graphics department for "a cut above." [Exp #160.]

CreaTech http://www.concentric.net/~createch Exceptional yet reasonable Web page design, implementation, and maintenance. [Exp #160]

Creative Web Solutions International http://www.cwsi.com Full service Web site ■ Internet commerce consulting firm. [Exp #160]

Cuesta Systems http://cuesta.com Cuesta Systems is a developer of online catalogs—fully searchable secure online ordering and simple to update. [Exp #160]

CyberCityMall http://cybercitymall.com Affordable Web ■ provider Web page hosting ■ lowest per ■ ■ [Exp #161]

E.C.N. http://www.ecn.com Full Internet access free Web pages and games and more free trial. [Exp #160]

LocalSites http://www.localsites.com Local area directories of Web sites. Opportunities available to manage your own Local- ■ ■ ■. [Exp #160]

MazuNet http://www. ■ ■ net.net Provides a full

ForeverMall http://forevermall.com Get a personalized email address and keep it ■ matter how often you change ISPs [Exp #160.]

Graphics Frontier Web Site Development http://www.gfrontier.com Web site development using graphics professionals include design and content development from professional designers and programmers. [Exp #162.]

Headline Media http://www.headlinemedia.com Full-service Web page design for Southern California ■ and beyond. [Exp #162.]

Human Dimensions http://www.humandimensions.com Web design and content development from professional designers and programmers. [Exp #162.]

Imagine-Net Internet Services http://www.imagine-net.com Internet and intranet specialists offering Web hosting, intranet development, and Internet access [Exp #160]

InterseE Corp. http://www.interse.com/ Premier Web analysis software for in-depth data to evaluate your return on your Internet investment. [Exp #160]

Jerry Wang's Web Design http://www.csun.edu/~hbcs c274 Custom Web pages designed for your business [Exp #160.]

Joe's CyberPost http://www.joes.com/ Publish your own free "instant home page" ■ minutes. [Exp #160.]

Kepnel http://www.kepnel.com/ Kepnel ■ a low-cost, full-service ISP serving San Jose, Palo Alto, and Fremont. [Exp #160.]

Laslo's WWW Site http://www.netcom.com/~Laslof/ Home ■ Laslo's Web design ■ computer consulting. [Exp #160]

ShopCart http://www. ■ ■ cart.com Secure server shopping ■ ■ program

range of Internet and networking services and solutions, fast access, reliable hosting, and excellent service [Exp #162.]

Mastery, Inc. http://www.masteryinc.com Low cost Web pages with Internet Access. [Exp #160]

My-Kids.com http://www.my-kids.com Commited to developing Web sites that capture life's precious moments and break down the barriers between family and friends. [Exp #181]

Net Host http://www.host1.com We provide quality services including Web hosting ($19.95), design, promotion, and domain registration at low costs. [Exp #161.]

New World Revolution http://www.nwrev.com NWR creates Web sites for companies and organizations. Affordable, reliable, experienced and professional. [Exp #161]

Online Presence Providers http://www.downwithopp.com/ Do business online for $1 per day. Unparalleled service quality, and value. Experience the difference [Exp #161.]

P-Net http://www.p-net.com/ P-Net offers complete design, service, ■ ■ support for your Web pages, including HTML coding, CGI scripting, and scanning. [Exp #161.]

Pacific Internet Systems http://www.pbs1.com Internet access and Web page housing First month free [Exp #162.]

Rick's Webpages By Design http://www.megamed.com/RickHome/index.html Offering a unique combination ■ Web page design — quality and creativity. ■ ■ ■ and ■ businesses [Exp #162.]

Sequoia Softworks, Inc. http://www.SequoiaSoft.com Software development and Internet consulting specializing in custom Web applications for Windows 95 and NT. ■ ■ [Exp #160.]

$35/mo. easy set-up, check-out, and email confirmation [Exp #160.]

Spyglass Internet Advertising http://www.offramps.com/spyglass Affordable, high-quality Web site development. Helping you market your business on the Internet. [Exp #162.]

Star One Internet http://www/scv/net Now serving Santa Clarita Valley. Unlimited access $19.45/mo. plus $20 set-up Web hosting for businesses [Exp #151.]

SteppinStone Web Design http://www.pnmenet.com/~kantoku/see/design.html Affordable Web design [Exp #161.]

SupportHelp.com http://www.SupportHelp.com The Internet's newest search engine [Exp #161]

Vividus Home Page http://www.vividus.com Home page for Vividus Corporation of Web Workshop, ■ Web page creator for kids [Exp #161]

Web Hosting ■ Web Design http://www.webplara.com Specializes in Web hosting design and presence Call for further details 1-800-493-2752 [Exp #161.]

Web/Internet Tutorial Site http://www.squareonetech.com Attention newbies Check out SquareOne's Web tutorials Internet glossary, shareware and links [Exp #162.]

Whole Earth Networks http://www.wenet.net Providing dial-up access, Web hosting and high speed Internet connections. Specializing in turnkey solutions for commerce ■ ■ Internet [Exp #162.]

Wishing Well Sysops' Corner http://www.geocities.com/SiliconValley/1838 Best BBS resource ■ the Internet [Exp #162.]

WOLNET http://wolnet.com Complete Internet Service Providers [Exp #162.]

Working Assets Online http://www.wald.com ■ first ISP ■ donates money (1% of Internet

charges) to groups working to house homeless, ■ ■ the rainforests. ■ ■ ■ ■ [Exp #162.]

SERVICES & PRODUCTS ■ ■ ■ ■

4insurance.com http://www.4insurance.com Get the best ■ ■ on insurance without the hassle. Free online quotes. [Exp #162.]

American Greetings Online http://www.americangreetings.com Order and send cards, flowers, candy and more from your personal computer [Exp #161]

Anil Raman Insurance Agency http://www.wao.com/~raystark/ramam.html Personal and commercial lines of insurance. English and Hindi spoken [Exp #161]

Antique Mall http://www.linet.com/users/antic ■ ■ ■ of antique items ■ ■ ■ collectors appraisers, repair, and restoration. Free appraisal on one item [Exp #161]

Arcanum Ranch Pottery http://northcoast.com/~arcanum Beautiful handmade pottery with classic glazes available at the studio in Northern California [Exp #161]

Argonaut Systems http://www.geocities.com/Silicon Valley/Park/0165 Automating sites—using computers in an organization ■ ■ function should be a planned operation [Exp #160.]

Asante's Health Center http://www. ■ ■ ■ ■ com Asante Health Center in Los Gatos specializes in massage acupuncture, and chiropractic [Exp #160.]

Bicycle Motors http://www.bicyclemotors.com Transform your 26" adult bicycle into a super commuter in one hour with the ■ ■ Bicycle Motor [Exp #160.]

■ ■ Booksmith http://www.booksmith.com The ■ ■ net's leading independent bookstore feature ■ ■ inventory browseable selections, author events and more. [Exp #162.]

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  Sample web pages and components

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LA INTERNET. THE COMPANY THE SOLUTION

Cherry Coke Wall http://www.ccwall.com Designed to break the barriers of conventional marketing on the internet. [Exp. #161.]

Coffee Anyone? http://www.coffee-anyone.com The original computer coffeehouse. [Exp #161.]

Commercial-directory.com http://commercial-directory.com/free-ads Place free classified ads in hundreds of newspapers worldwide. [Exp #162.]

Computer ESP http://nation.com A free one-stop directory to easily save you time and money when shopping with cyberstores. [Exp. #162.]

Conquest Industries http://www.ypm.com/conquest/ Manufacturers of Spincastfly machines the ideal tool for the creative entrepreneur. [Exp #162.]

Cyber Gity SOG http://coverage.com/?42625 Cyber City, discover your community or explore a super library at trivia, advice, coupons. [Exp #161.]

Cyberstock http://www.cyberstock.com Available as the stock Cyber City the live online store for patients in a comfort of their own home or wherever they access the Internet. [Exp #161.]

DB Publications http://www.publications.com/ app packaging for your Meet our clients or quote. [Exp #161.]

Digital Stock Corp http://www.digitalstock.com Published by Cyberstock royalty free stock photography. [Exp #161.]

Digital http://www.laser conquest 1997 mixed breed calendars cat magnets rubber frozen magnets. [Exp. #162.]

Disability http://www.e-internet insurance disability allows employers to offer a comprehensive benefits plan. [Exp #162.]

utes [Exp #161.]

Executive Greeting Cards http://www.baccoc.org/executive Personalized business greeting cards Currently displaying Christmas cards and calendars, some with Spanish and French verses [Exp #161.]

Ferguson Consulting http://www.datadepot.com/ferguson/index.html Specializing in networking, programming, accounting, Windows, Novell, UNIX, FoxPro, MasSO, Web pages, C, BBX, and custom projects [Exp. #160.]

Futon Depot — Discount http://goplay.com/clients/futon/adv/futon-1.html Examples of furniture and futons available Download discount coupon [Exp #161.]

Go — What's New http://go2whatsnew.com An Internet directory service specializing in the top and latest products from Fortune 500 to — Companies. [Exp #162.]

Haversack http://www.haversack.com Haversack—the perfect sport solution, a backpack for all necessities, lunch, first aid, etc. [Exp #160.]

Jim Zook—Illustrator & Graphic Designer http://www.jimzook.com Web graphics and designs, ads brochures, corporate reports, etc. Available for parties, weddings, — bar-mitzvahs [Exp #160.]

Jones Biomedicals & Laboratory, Inc. http://members.aol.com/jonbio/jbinc.htm Provides scientific materials to educational institutions, fish food kits, and novelty items [Exp #161.]

Klopper Investigations http://www.globaldomain.com/klopperpi Full service investigative firm offering nationwide computer public records research, criminal and civil investigations, and other related investigative research [Exp #160.]

L&L Enterprise http://members.aol.com/lghees/llenirps.htm L&L Enterprise — a national and international information and web — distribution/sale [Exp #162.]

LACIS http://www.lacis.com LACIS supplies books, tools, threads, and fabrics for the textile arts, millinery, bridal, conservation, and more. [Exp #160.]

LifeScan, Inc. http://www.LifeScan.com Products, company, and diabetes self-care information to improve the quality of life for people with diabetes [Exp #161.]

List Store http://www.list store.com Order consumer mailing lists online from Donnelley Marketing, Inc. [Exp #160.]

Margaritas.com http://www.margaritas.com Order frozen margaritas, pina coladas, and other gourmet foods delivered to your door. [Exp #150.]

The Market Place 2000 http://www.themarketplace.com TMP2000 is an interactive, real-time, online database of product information in business-to-business secondary markets [Exp #161.]

MDSystems.com http://mdsystems.com/index.htm Photographs on t-shirts. Web page development, business services and more [Exp #160.]

Melissa's World Variety Produce http://www.melissas.com Tempt your palate on this journey through — delicious and healthy world of exotic produce and specialty foods [Exp #162.]

Metro Media http://www.metrostdhom.com Information about Metro Media, a full-service multimedia company specializing in print, video, and interactive communications [Exp #162.]

Mr. Martin Garage Doors http://www.datadepot.com/ferguson/martin/index.html Martin garage doors offering "The World's — [Exp #160.]

Nikon Camera http://nikonusa.com [Exp #161.]

Camara Exchange http://www.cameraexchange.com — database for — photo

graphic, video, motion picture, and mini-lab equipment. [Exp #161.]

Pacific Corner Mall http://www.pacificcorner.com Offers Chinese specialty items—music, CDs, computer games, cook books, novels, health items, tea, etc [Exp. #151.]

Paras Enterprises http://www.totalmarketing.com/pereaent The biggest — source on — internet for special interest and instructional videos and CD-ROMs. [Exp #162.]

Performance Contracting, Inc. http://www.performancnet.com Mechanical insulation and asbestos abatement contractor, capabilities, and qualifications [Exp #162.]

Perry Ellis Menswear http://www.pemenswear.com/ [Exp. #161.]

Pete Conder And Friends http://www.scruz.net/~saconder/ Information about Pete Conder and Friends — jewelry, specializing in 14k gold and silver [Exp #160.]

PiSoft Corp. http://www.pisoft.com Custom app/dev programming, PowerBuilder, SOL, VB, Access, CGI, Perl Using MTX or Carillon Financials Application system. [Exp. #162.]

Plaza Dental http://www.plazadental.com Visit — dental information library — [Exp #162.]

Quality Translations For Science And Industry http://www.industry.oetradesc.worldwide [Exp #161.]

Rich's Directories http://www.goplay.com/clients/netwebdirecbs-1.html — — a free directory — get into our products available [Exp #161.]

ca. Garden Grove, CA. http://www — — 3/garden.g2zn Events National — directory — — history of Shotokan Karate in America. [Exp. #162.]

SamsaToo! http://www.SamsaToo!.com —

gy program and text files, links to testing sites, other psychology software sites [Exp #161.]

Smile Doc http://www.smiledoc.com/dentist Download our new, free multimedia dental software program Also featuring articles from experts and "ask the dentist." [Exp #151.]

Sunshine International Penpals http://sunshine-girls.com/ Asian women desire romance, marriage. World's largest correspondence service since 1984 Free photobrochure. [Exp #161.]

Takeout Restaurant Listings http://www.best.com/~morico Restaurant takeout guide by category and location Menu, pricing, — directions also provided. [Exp #160.]

The Tower Of London For — http://www.towerof london.co.uk Own an authentic — piece of England's historic past. [Exp #162.]

Traffic Talk License Plate Frames http://www.traffictalk.com Design a personalized license plate frame for your car. [Exp #162.]

Tradeao — http://www.trudeao.com Avoid crowds — malls—holiday, gift, and personal shopping — [Exp #160.]

Tubr Custom Whirlpool Bathtubs http://www.opendoor.com/Tubz/TobzHtm Page.html Largest and — whirlpool bathtub showroom — West Coast. [Exp #160.]

USANA Century Team http://www — — and — Introducing USANA, bring — — Destiny for your life [Exp #162.]

The Variety — http://www.thevarietystore.com Gift — — [Exp #162.]

ViMalett http://www.comserve.com/home — tory report — historical — — — on the — in California. [Exp —

#160.]

Virtual Treasures http://www.vtme.com Twenty-four herbal extract formulations designed to improve you overall health. [Exp #161.]

WealthCom Telecommunications Cooperative http://www.cruzio.com/~telemat/wcagt/40822729.htm Finally, long distance — you — afford and a calling plan you — understand. [Exp. #162.]

Wine Enthusiast http://— wineenthusiast.com/ The Wine Enthusiast Web site — an online shopping and information resource. [Exp #162.]

World Web Collectibles http://www.wwcollectibles.com/ Features a professional marketing report that can help you more effectively advertise on — Web. [Exp. #161.]

FINANCIAL/REAL — /E SERVICES

Active Investors Internet http://www.successus.com Experienced investors offering education and investment opportunities in real estate and success training [Exp #162.]

Advantage Funding http://commercial-directory.com/advantage Purchaser of Trust Deeds/Mortgages (seller-financed). Lender sources also — 1-800-604-6394. — [Exp #162.]

America's Business Lending Directory http://www.businessfinance.com — business capital search — is 100% free to — [Exp #162.]

Bay Area NewRealty http://www.centrally.com Searchable listings with photos, — with — monthly payments & — for different downpayments [Exp #162.]

Best Of The Dow http://www.bestofdow.com/stocks — historically proven, statistically sound — of choosing — which have achieved superior — over — years. [Exp #162.]

Online Guide

Web Page Listings *continued*

BIN—Bermuda Insurance Network http://www.binet bm Providing Internet connectivity to Bermuda as well as offering services to the island's growing insurance and reinsurance industry. [Exp #160]

Bury Your Debts Forever—Without Bankruptcy http:// members.aon.com/ronnet 711/buydebt.html [Exp #162.]

Chosen Properties http:// www.choseproperties.com/ index.html A full service realtor in Southern Oregon [Exp. #160]

Consumer Credit Counseling Service Of The East Bay http://www.chosebay.org A nonprofit organization dedicated to helping you help yourself regain control of your finances [Exp. #160]

Discovery Funding Company http://www.globaldomain.com/ddi We offer loans for real estate and other business investments [Exp #160]

Eagle Consulting http:// www.irvine.quik.com/eagle consulting Consulting and representing corporations, partnerships and joint ventures. Invests in wireless communications, software, Internet and emerging growth companies [Exp #162]

Forever Group http://www appleforever.org Investment group with focus on Apple Computer [Exp #162]

Guess The Dow Contest http://home.earthlink.net/~bill-ta/ Famous Dow contest lets you predict what's going to happen in Wall Street. Enter now [Exp #160]

HomeNet http://home.bcg net Search engine for homes for sale, home financing and improvement advice and industry professionals [Exp #161]

HomeScout http://home scout.com 300,000 homes for sale. 122 real estate search capabilities. Manages listings and [Exp. #160]

In-The-Money http://www

and low interest ▪ credit card info, and credit repair software. Thoroughbred Race selections also available [Exp #162]

Internet Fund http://www Internetfund.com The Internet Mutual Fund, a no-load, performance-based fund, aimed ▪ investors looking for opportunities to invest in the future ▪ the Internet [Exp #160]

The Noble Internet Directory http://www.experts com Investment expertise free online [Exp #160]

Nora Robinson, Realtor http://www.nrobinson.com Real Estate agent serving the Campbell, Cupertino, Los Gatos, Saratoga and Willow Glen areas [Exp #162]

Real Estate Help http:// ▪ realestatehelp.com Offering guides, tips, listings, consumer connections, ▪ professional services [Exp #161]

REdirect http://www.luma com/RD/redirect An information site ▪ commercial real estate professionals with databases of financing and equity sources [Exp #160]

Tuolumne Associates http://www.primenet.com/~pabat/ Supports newly-formed and first-stage high-tech product companies. We offer business planning, personnel for marketing, finance and operations [Exp #161]

Working Class Investor Newsletter http://www geocities.com/Wall Street/1456 Socially conscious investing the Global Fund for Women. Mutual Funds, company profiles plus more for ▪ experienced investor [Exp #162]

LEGAL SERVICES

Association for California Tort Reform http://www actr.com/actr. The latest information on legal reform summary Supreme Court decisions ACTR's amicus briefs in selected ▪ and more [Exp #160]

Counsel Connect http://

www counsel ▪ Counsel Connect, the online service exclusively for attorneys, will make its service free to lawyers in government and nonprofit offices [Exp #161]

Law Offices of John R ▪ http://members.tripod.com/~jkaho/index.html Attorney handling Computer, Bankruptcy, and Real Estate law and transactional matters in San Jose, CA [Exp #162]

LawAid http://www.lawaid.com Created ▪ solve the problem of finding law related services in a simple and easy-to-use database [Exp #161]

Legal Survival Newsletter http://www.lsran.com/newsletter.html Monthly online publication featuring the latest developments in consumer credit, divorce, estate planning, medical and more [Exp #162]

Methaven & Associates http://members.aol.com/methaven Business and computer law contracts corporations LLC's copyrights, trademarks and more [Exp #162]

Para http://members.aol.com/jkent.para-ecal-s Paralegals Qualified assisting individual business with divorce unlawful detainers and matters in the SG Valley and Inland Empire [Exp #161]

Richard ▪ Greenslade Attorney ▪ Law http://www.ntg.com/rg Copyright, trademark, licensing business, and transactional law for the computer, entertainment and publishing industries [Exp #162]

Surfing Lawyer http://www netlegal.com Campbell's most comprehensive legal Web site features issues of interest to Campbell lawyers and the general public, as well as freeware, shareware and lawyer jokes [Exp #161]

Weiss & Weissman http://www.ww.com San Francisco area law specializing in estate planning, tax, probate law for sellers, buyers and for sale by owner [Exp #160]

Web Page Listings *continued*

WWW Law Firm Directory
http://pages.prodigy.com/CA/rawb/lawdir.html Free directory of law firms ■ the Net for consumers and attorneys. [Exp. #161.]

EMPLOYMENT/ EDUCATION

Altos Education Network
http://www.altosnet.com The first totally Web-based education for entrepreneurs on the Web. [Exp. #160.]

Computer College Silicon Valley *http://www.ccsv.com* Internet and HTML training specialists. [Exp. #160.]

Eduzone *http://www.edu zone.com* The most comprehensive site for educational resources and information available on the Web. [Exp #162.]

eZone *http://www.mcp.com/wade.ezone* interactive online education site offering self-paced courses in Perl, HTML C++, Java includes mentors. [Exp #161.]

Helping Hand Services *http://www.moneyfinder.com* Guaranteed college financial aid. Higher education and career consulting Scholarships, fellowships grants, loans [Exp #161.]

High Tech Careers Virtual Job Faire *http://www.vjf.com/* Features over 500 employers listing over 15,000 high-tech career opportunities. a Resume Center, career magazines and more. [Exp. #161.]

Hotjobs.com *http://www.hotjobs.com* The new generation of online employment opportunities. [Exp #181.]

Human Resource Store *http://www.mcs.com/~ ■ Offers executive job careers, employer recruitment outplacement and full-service human resource outsourcing [Exp #160.]

JobSmart: N. Cal. Job Search Guide *http:// job ■ surfing local job news newspaper ■ job ■ salary info, and ■ tools help links list Bay Area Job list ■ ■ and KPIX [Exp #161.]

Los Angeles Pierce College *http://cgi.amazing.com/pierce/* Offering ■ integrated catalogue and schedule of classes search engine [Exp #161.]

Mactivity *http://www.mactivity.com* Educational conferences for designers and developers using Macs [Exp #161.]

Northern California Job Search Guide *http://job mart.org* Local job books, newspapers, job hotlines, job fairs, salary info, and more [Exp #161.]

Resume-Net *http://www.resume-net.com/* Silicon Valley computer industry resume service Free ■ employers First month free to job seekers [Exp #160.]

Southern California Jobs *http://www.thomas-staffing.com/jobs.htm* Updated job listings for the Southern California ■■ [Exp #160.]

Unique Part Time Jobs *http://members.gnn.com/reserchco/respub.htm* Your complete source of fun interesting and lucrative spare-time jobs [Exp #162.]

ORGANIZATIONS/ PUBLICATIONS

American Civil War Association *http://reenact.org/acwa/* Civil War re-enacting organization ■ California. Battles living history and display of life during the 1860s [Exp #161.]

American Lung Association *http://www.lungusa.org* The ultimate Web source ■ lung disease ■ lung health issues [Exp #162.]

American Medical Association *http://www.ama-assn.org* [Exp #161.]

American Society Of Safety Engineers: Greater San Jose Chapter *http://www.best.com/~assegsjc* Information on ■ society and local chapter meetings and ■ opportunities ■ [Exp #161.]

Amiga Users Group of Long Beach ■ *http://www.loop.com/~auglb* [Exp. #162.]

Apparel News ■■■ ■

apparelnews.net [Exp #160.]

Ark Trust, Inc. *http://www.arktrust.org/genesis* Dicated ■ to exposing animal cruelty through the powerful voice of the major media Presenter of the Genesis Awards. [Exp #162.]

The BBS Corner *http://www.vni.net/thedirectory/* Devoted to Bulletin Board and online users and sysops. [Exp #160.]

Bits And Pieces *http://www.ryzome.com/bits.htm* An e-zine of young writing and art. It's your world send it to us! [Exp. #160.]

Black Hollywood Reports *http://home.earthlink.net/~btn/* Weekly news and information service for African-Americans in the entertainment industry [Exp #160.]

Bungalow News Home Page *http://www.bungalow news.com* One of LA's largest and most complete newsstands [Exp. #160.]

Center For Systems Management *http://www.csm.com/* Useful information for Project Managers ■ Systems Engineers. [Exp #160.]

Childrens Fables *http://www.cruzio.com/~nikan/index.htm* Long before Disney's Pochantas Potawatomi Indian children had their ■■ heroine—Winnie Two-Shadows. Read one entire ■■ online ■ free [Exp. #162.]

Community Peacemakers *http://eml ■■ 30/~smaade/index.html* Take a ■ for peace non-violence, and social justice a ■ nity peacemaker! [Exp #161.]

CTWO: Center For Third World Organizing *http://www.igc.apc.org/ctwo/* Established ■ ■■■ CTWO s nationally ■■■■■■■ ■■ innovative organizer training ■■■■■■ developer ■■■ ■■■ ■ ■cos [Exp #161.]

Cybrary Of ■■ ■■■■■■ *http://iremember.org* ■■■■ ■■■■■■ testimonals ■■■■ ■■ ries ■■ more [Exp #161.]

Web Page Listings continued

DharmaNet International http://www dharmanet org Central clearinghouse for Buddist resources worldwide. [Exp. #160]

Dictionary Of PC Hardware And Data Communications Terms http://www ora com/reference/dictionary Publisher O'Reilly & Associates create a freely accessable online version of this helpful book. [Exp. #160]

Fabulous Freebies http:// members.tripod com/~free bies Online zine presenting items and samples available for free ■■ and off the Internet. [Exp #151]

Financial Women International http //www fwi org Includes information about the association, membership, conferences, Leadership Forums. position statements career management articles, and more [Exp. #160]

GCIU Local 10-N http // home.earthlink net/~dpad gcgi/ Graphic Communications International Union The Union of the Presspersons of the LA Times [Exp #162]

GerMedi@ http://germedia de News to use from Germany [Exp #160]

Hard Of Hearing http // www noh org. BBS/Web pages for deaf ■■ harn of hearing Clubs for ALOS SHHH, and organizations [Exp. #162]

totalg http://members gnn com/totalg Improve your health naturally without drug side affects. Subscribe to this free newsletter [Exp. #162]

Intercultural Dating Club

http //www.starcreations com/idc IDC for singles interested in interracial/ intercultural dating Singles parties, rotation dinners. and matchmaking [Exp #161]

International Small Business Consortium http // www isbc com/ Helping small businesses find busi ■■ opportunities worldwide [Exp #161]

Islamic Center ■ Sacramento http //users aol com/hineat/index.htm Find information on Islam and Muslims [Exp #160]

Korean Books At U.C.B. http://www bb berkeley edu /EAL/ealk2 html In both English and Korean, this online catalog offers a list of references and special collections ■■ the East Asian Library [Exp. #161]

Lanchester Press, Inc. http://www lanchester com/ Books on Japanese marketing strategy ISO 9000 and reliability [Exp #161]

Los Angeles Free Press http://www leonardo net/ sila/lafp/ [Exp #162]

Mansell Publishing http:// www mansell.com Publisher of books for Design trade New ■■■ IdentaFONT allows fast identification of PostScript fonts [Exp #161]

Microwave News http:// ■■■ microwavenews com Information ■ health effects of electromagnetic fields [Exp #160]

National Center For Employee Ownership http://www nceo.org/ Information about employee stock ownership plans

(ESOPs) and other forms of employee ownership. [Exp #160]

NetscapeWorld http://www netscapeworld.com The hands-on magazine for Web professionals [Exp #161]

News Of The Day (In Haiku) http://www newsof theday com News summaries on the Web. [Exp #160]

Northern California Independent Booksellers Association http://www nciba com/ Resource for readers and consumers directory of ■ California bookstores, online stores, news, and more. [Exp. #162]

OCLUG http://chaos fuller ton edu/oc_lug html Orange County Linux Users Group [Exp #160]
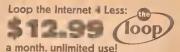
Peninsula Computer Club http://www.serius com/ ifo/pcc5 htm Peninsula Computer Club for IBM-Compatibles [Exp. #161.]

Polly Klaas Foundation http // ■■■ pollyklaas org Featuring child safety ■for mation suggestions for recovery of missing children Info ■ currently missing children ■■ ■■■■ et PKF's accomplishments [Exp #162]

The Probe http://www the probe.com/ Internet Marketing Shopping ■■ [Exp #162.]

The Ridge Page http // ■■■ geocities com/Silicon Valley/Park/3753 Computer and Internet ■■■■ information links icons and images Discussion area updated monthly [Exp #161]

List Your Web Page
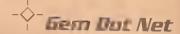
To list your Web home page for FREE send us the name of the page/site, the URL (address), and a fifteen-word description. Also, please include a contact ■■■■■ and phone number for our reference only. Listings will run for three issues unless renewed. We reserve the right to select listings on ■ space-available basis and to ■■■ those listings as needed. Send your listing to: callen@bam media.com , Web Listings, 3470 Buskirk Ave., Pleasant Hill, CA 94523 or fax to (510)946-2974

Online Guide

Web Page Listings *continued...*

Cichlid Research Home Page http://garnet.berke ley.edu 2727 Information on the fish family Cichlidae for hobbyists and scientists [Exp #162.]

D. Bishop's Struggle For Medical Marijuana http:// www.execpc.com/~doreen/ Learn about Doreen Bishop's fight for her legal right to use natural medicine—marijuana [Exp #161.]

David Rowell's Homesite http://www.hooked.net/~drowell/ Home site for David Rowell. San Francisco multimedia designer. Lots of Java and Shockwave [Exp #162.]

Dover's Reingerator http:// www.geocities.com/Heart land/Plains/1306 Read our fridge notes, write one of your own [Exp #162.]

Electronic Business Directory http://www.gatelyfc com. Web site links to enable everyone to access business information on the Net [Exp #160.]

ForeignCurrency http://our world.compuserve.com/ .homepages/breezein For each currency transfers at excellent exchange rates have exchange rates dating to 1970 [Exp #160.]

Game Cracking Computer Hacking Web Page http:// www.earthlink.net/~tasztos urm Riddles games shareware, cracks, cheats nacks ads, jokes and tks [Exp #160.]

Gimpel's Page http://www students b cru edu/~chad- students b cru edu/~chad free hacked page pro ... less free tech support for platforms plus humor works [Exp #161.]

Goofy Gary's Home Page www.geocities.com ... 8889 S Kleen ... old ... earn a few ... about me [Exp #162.]

GPF Avoidance http: home cambrine net ... ... elementary VGA ... and other stuff [Exp #162.]

Gerald Valenzuela's Home Page ... Webcam

page with links to military and local Web sites [Exp #160.]

Highland Home Page http://users.deltanet.com/~hilander Information on Scottish Highland games and resources for highland athletes, also some geography [Exp #160.]

Home Business Software http://www.loop.com/land mark1/network.htm Download free software. Find out how you can have cable premium channels free of charge. [Exp #160.]

Huascape Online http:// netswired.com/hua The Web site you have been waiting for—free stuff movies, shareware, cool links, and more. [Exp #160.]

... http://www.owlink .com/~jacobs29/MHO One man's struggle to cope with his existence and the latest software on the market [Exp #160.]

Joe Lavin's Humor Column http://www.sure.net ~joela via No Star Trek jokes Just ... comedy every Tuesday and Friday [Exp #160.]

Juggling Library http:// ... tstonramp.com/~will kins/ Juggling research library with special collections on juggling rubber stamps Into ... 50th Festival of International Jugglers Assoc. [Exp #160.]

KriziaWeb http: .... krizia.com General interest tools and information with a focus on ... ... brain injury [Exp #160.]

Lee's ... Page http:// ourworld.compuserve.com 80//homepages/LEEGOLD STEIN An eclectic site with a surf theme. Links to surfing weather software HTML authoring, sla and other interesting sites [Exp #161.]

Lincoln-Douglas Debate http://members.aol.com/To ga1Dindex.htm A site ... the Linco ... debate, espec ... for the Bay Area [Exp #162.]

McCanna ... Page http://www ... Download free ...

including 3-D alphabets textures and more by Lau ne McCanna [Exp #161.]

Medical Helminthology http://www.hooked.net/ fredarla Information ... parasites that infect ... than 140 million of the world's population For medical students and professionals [Exp #160.]

Mike Mueller Home Page http://www.westworld.com/ index.html Mike Mueller ... a Geology major ... Cal State Los Angeles [Exp #160.]

Mike's Home Page Disaster http://www.geocities com/Colosseum/2534 [Exp #160.]

Mis-Magic's House http:// www.priment.com/~jeff ing/ When the lights dim and the air grows cold you're in Mis-Magic's House [Exp #160.]

Mr ... Wonderful's Lair http://www.ovisom ... Bore ... Games ... shareware ... matchmaker and more [Exp #161.]

Netcafe Personal X ... Page http://205.136.189 21/allav [Exp #162.]

Nikki's Home Page http:// www.neosoft.com/nikki See how easy it is ... Christmas presents from old ... [Exp #162.]

Norm's Nexus http://mem bers.gon.com/blurb/setup ... Hong Kong pop stars 007 HTML authoring ... ... X-Files guide photos and more. [Exp #160.]

Owl's World Of The Bizarre http://www.ovis.com Absolutely shocking, ultimate ... but unique ... true short reports [Exp #160.]

Photographers List http:// members.aol.com/Sonola 9754/photogLIST.htm A comprehensive ... a photographer's ... ... [Exp #160.]

Randy's Home ... ... home New links ... wall [Exp #160.]

Refrigerate WebSite

http://www.hooked.net bless/ An entry point ... useful Early Christian ... ca.) resources ... the internet [Exp #162.]

Road Warrior's ... Page http://ourworld.compu serve.com/homepages/D Nutter Mary ... to music politics etc Items for sale and trade. [Exp #160.]

Sako's http://www.geoci ties.com/hollywood/2355/ sakos.htm Comic books anime ... ... sports ... [Exp #162.]

Sam's World http://www geocities.com/SiliconVal ley/Park/3942 Info about Sam—lots of animation some Java and inks [Exp #160.]

Scott's Honda/Acura Home Page http://www.av.qnet com/~mickey/welcome.htm All makes of Honda plus ... Acura Integra home ... Type-Q Prelude Classichs tds [Exp #162.]

Society Of Abidance In Truth (SAT) http://www SATRamana.org/ Dedicated to Bhagavan Ramana Maharshi and ... teachings ... Nondual Reality Satsang with Master Nome [Exp #162.]

Southern California Libraries http://home .earthlink.net/~jsmog/lib rary.html ... comprehensive ... ... of libraries ... Web sites in S.California—public academic ... ... word [Exp #161.]

Sprint Car Racing http:// www.spc.net/sprint/sprint car.htm Learn more about Sprint Car Racing on dirt tracks including "A Night of ... Races," racing ... ... [Exp #160.]

Steve Soskin's Humble Home Page http://www2 ... ... collie links ... ... background music [Exp ...]

... ... Per ception http://www.d ... ... collect ... the ... ... [Exp #160.]

Dealer ■ Service Guide
Quality Time Computers
10331 Desoto Ave., Chatsworth, CA 91311
(Corrected Phone #'s)
(818) 700-0411 • Fax (818) 998-5232
(805) 578-9855 (Simi Valley Store)
Areas ■ **Specialty:** Top performing fast computers, cutom-designed systems, repairs and upgrades
Platforms Supported: Windows NT, Windows 3.X, Windows 95, MS-DOS
Special Value-Added Services: Aggressive pricing, full warranties, excellent service, warranty, returns

Guide

Web Page Listing ■ continued

Talon's Corner http // ■■■ geocities com/Silicon Valley/Park/4887 A fresh site with X-Files, 104, the Olympics, and links ■■ universities around the nation. [Exp #160]

Ted Alvy Cosmos Topper Home Page http://pages. prodigy.com/FNJD74A Mallard, Captain Beefheart, Little Feat, Neon Park, Firesign Theatre, and more. [Exp #161]

The John Gotti Tribute Page http://www.netgate. net/~ravenna/gotti.html Alleged Mafia boss, ■■ allaround nice guy. [Exp #161]

Thomas Pitre Home Page http://www.pitre.com I am involved in and deliver online training, curricula design, and fiber optic training. [Exp #160.]

Topics For Seekers http:// www.hsc.usc.edu/~leighton Ancient gems from India's Vaishnava tradition. Beautiful and something truly different. [Exp ■■■■]

GOVERNMENT/ POLITICS

Corporate Watch http:// www.corpwatch.org As all the Fortune 500 companies jump onto the World Wide Web bandwagon, who's keeping an eye on them? Corporate Watch is! [Exp #162]

Culver City Home Page http //users.aol com/NEnrstrom/Culvercity.htm [Exp #160]

NASA http //observe ivv nasa gov NASA has entered cyberspace and now offers an Internet window to the best ■■ NASA earth and space knowledge [Exp #161]

NASA Spy http //observe ivv.nasa.gov/observe/vhld/it-spy/spy.html Spy, the newest feature of ■■SA's Observatorium Web site includes declassified satellite images, provides background on the spy satellite program and allows you to order ■■■■■ ■■ images [Exp #161]

US Consumer ■■■■■■■■ http //www.gsaaig.gsa.gov

Find the latest information from more than forty US government agencies. [Exp #161]

Women Of NASA http // observe ivv nasa gov/obse rve/oold.oold.html NASA's Observatorium looks at the traditionally male world of science and turns its lens ■■ itself. [Exp #162.]

ARTS

A Film, ■■■, ■ Brush Conspiracy http //www.prime net.com/~fundi/index.html Afrocentric Web site reflecting digital artistry, also featuring clipart catalogs, and unique compositions. [Exp #162]

■■■ Minds Surf ■■■ Sports Photography http //www artminds.com Fine art photography celebrating the strength, beauty and imagery of the male athletic physique. [Exp #161]

ArtCommotion http //www arttcommotion.com The Los Angeles Contemporary magazine [Exp #162]

Artist Connection http //art eron.com/uranoski Art online gallery featuring full-color photos of subscribed artist's work b'os and up-and-coming events. [Exp #161]

Artwalker Project http// www.artwalker.com Contextual walkthrough-based online paintings and drawings of real-world locations. [Exp #160]

Black Photographers Visual Gallery http //www home.mcity [Exp #162]

Cannonball Express http //www2.best.com/~cannonball A video production progress revolving around Firestone's home the family and environmental issues [Exp #160]

Digital Design & Associates http //www.digital design.ssco.com For illustration and design, and more. See Communications ■■ We do print and electronic media work. [Exp #160]

The E-Wall http //www cities.com/SoHo/8215 A visual exhibition where ■■ are invited to hang a piece of your own art work. [Exp #162]

Product Spotlight

Updates

Allworth Press has published a desktop reference of digital-imaging terms, **The Digital Imaging Dictionary**. Allworth Press, 10 East 23rd St., Ste. 400, New York, NY 10010, 1-800-491-2808.

Decisioneering has introduced a general-purpose visual modeling tool, **Analytica**. Decisioneering, Inc., 1515 Arapahoe St., Ste 1311, Denver, CO 80202, 1-800-289-2550, or URL http://www.decisioneering.com/

Evergreen Internet has upgraded its Internet commerce software, **CyberCat 3.0**. Evergreen Internet, Inc. ███ N Colorado St., Chandler, AZ 85225 (602)926-8500, or URL: http://www.evergreen.com/

Farallon Communications, Inc., has announced **Timbuktu Pro** for Windows NT v1.3 and 1.4 Farallon Communications Inc. 2470 Mariner Square Loop, Alameda CA 94501-1010, (510)814-5100 info@farallon.com or URL http://www.farallon.com

Micro Computer Systems, Inc ███ has released their **Calypso** email ███ software for Windows ███ and Windows NT Micro Computer Systems Inc., 2300 Valley View Ln. Ste 800 Irving TX 75062 1-800-886-4923, or URL http://www.mcsdallas.com

Olympus Image Systems, Inc ███ premiered their **D-200L** and **D-300L** digital cameras $599 and $899, respectively. Olympus Image Systems Inc. Two Corporate Center ███ Melville, NY 11747-3157 1-800-347-4027 or URL http://www.olympus.com

Palo Alto Software has announced the release of **Marketing Plus 2.0**. $164.95. Palo Alto Software, 144 East 14th Ave. Eugene, OR 97401, 1-800-229-7526, sales@pasware.com , or URL http://www.pasware.com .

Prairie Group, Inc. has released **DateView 2.6**, an electronic appointment book. $69.95 Prairie Group, Inc., P.O. Box 65820, West Des Moines, IA 50265 (515)225-4122, or URL http://members.aol.com/prairiesft/

QUALCOMM Inc. has made available **Eudora Pro 3.0** for Windows. QUALCOMM, 6455 Lusk Blvd., San Diego, CA 92121 1-800-2-EUDORA, URL: http://www.eudora.com

Specom Technologies has announced a videoconferencing package, **Suite Visions** $199 Specom Technologies Corp. 3310 Victor Ct., Santa Clara, CA 95054 (408)982-1880, sales@specom.com , or URL http://www.specom.com

Transparent Language has released **LanguageNow!** v5.0, the latest version of their language learning software Transparent Language, 22 Proctor Hill Rd. P.O Box 575, Hollis, NH 03049 1-800-752-1767 or URL http://www.transparent.com

World Software Corporation has announced **WORLDOX 96** Enterprise Document Manager World Software Corporation 124 Prospect St. Ridgewood ███ 07450 4406 1-800-962-6360, or URL http://www.worldox.com

Product Announcements

CD-ROM Hardware

CD Dupe-It

CD Dupe-It is the affordable answer for making CD-ROM disks for software distribution or archival backup copies of your important work. No mastering or digital multimedia experience is required; you simply insert the original disk and press start CD Dupe-It copies any disk to ███ internal A/V hard drive. Insert blank disks ███ make as many copies ███ you like. The ███ tem is self-contained—no connection to ███ PC or Mac is required. Or attach it ███ your computer and create your own original CDs. ($1495) Corporate Systems Center, 1294 Hammerwood Ave., Sunnyvale, CA 94089 (408)734-3475. URL: http://www.corpsys.com/

CD-R2x4

The CD-R2x4 is a dual-speed CD recorder and quad-speed CD-ROM player for Macintosh and Windows. It is compatible with all major recording methods and formats as well as professional audio CD recording with P-Q subcodes. It also supports packet writing that allows you to drag-and-drop files from your Mac or PC desktop to the CD-D2x4 ███ save them directly from applications The internal version features a headphone jack, volume control, and activity/power LED ███ the front panel The external version comes in a rugged, compact enclosure with mastering software and drivers for

Product Spotlight

Macintosh, Windows 95, NT, and 3.1x, SCSI cable, SCSI diagnostic LED, stereo audio out, headphone jacks, volume control, and activity/power LED. (Expected street prices: $499, internal; $649, external) Olympus Image Systems, Inc., Two Corporate Center Dr., Melville, NY 11747-3151. (516)844-5000. URL: *http://www.olympusamerica.com/*.

Mitsumi FX800

The Mitsumi FX800 Series 8X CD-ROM Drive features fast 150 ms access time, full MPC-3 compliance, compatibility with new CD formats (e.g. CD Plus discs), and a unique tray

design that allows the drive to work both vertically and horizontally. The drive uses the ATAPI IDE interface and fits in any standard half-height drive bay ($200) Mitsumi Electronics Corporation, 6210 N. Beltline Rd., Ste 170, Irving, TX (214)550-7300. URL: *http://www.mitsumi.com*

Laptops
TravelMate 6050

The TravelMate 6050 features the Intel 150MHz Pentium processor, 256K L2 cache, 16MB of high speed EDO memory, and full PCI bus architecture for fast performance Multimedia capabilities include Zoomed Video (ZV) port technology for advanced applications such as MPEG, full-motion video playback, modular 6X CD ROM and 16-bit full duplex audio. It is fully compatible with Windows NT Workstation 4.0 and is bundled with a 28.8Kbps modem Other features include a modular bay that houses a multitude of devices, such as a floppy disk drive, CD-ROM player a second 2GB hard disk drive, and an enhanced Lithium-ion battery. As with other TravelMate computers, the 6050

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includes infrared wireless communications technology allowing users to transfer files, synchronize systems, and print to other infrared-equipped devices and printers. ($5400) Texas Instruments, Inc., P.O. Box 6102, MS 3242, Temple, TX 76503. 1-800-TI-TEXAS. URL: *http://www.ti.com*.

Micro Express NP133A

The MicroExpress NP133A multimedia notebook is ideal for taking on sales presentations as well as substituting as your primary desktop system. Built around an Intel Pentium, 133MHz processor, it features 16MB of RAM, 265K Level2 Cache, 1.3GB hard drive, 12.1" active matrix color SVGA display, built-in touchpad, and 16-bit sound with built-in stereo speakers.

It also comes standard with an internal 28.8 fax/modem, IrDA-compatible infrared interface, 6X CD-ROM drive, as well as a Type III PC-Card slot and a Type II PC-Card slot. The battery is NiMH, with a two hour quick-recharge capability. ($2795) Micro Express, Inc., 1881 Kaiser Ave., Irvine, CA 92713. 1-800-852-1400. URL: *http://www.upages.com/microexpress/*

Panasonic CF-25 Notebook

The CF-25 combines rugged construction with the performance of a 133MHz Pentium processor, PCI Bus, and 1.35GB hard disk. The 100% magnesium case offers twenty times the strength of typical plastic cases. The hard disk and floppy drive are mounted in

special shock-absorbing compounds that reduce the transmission of external shock to less than 1/3 that of conventional mountings. Similarly, the LCD panel is securely mounted to the magnesium case and is protected by an internal damping system. The keyboard and touchpad are sealed to prevent water from entering the internal circuitry. The CD-25 is well-suited to harsh working conditions such as construction, manufacturing, service and maintenance, law enforcement, and security operations. ($3869) Panasonic Personal Computer Co., Two Panasonic Way, Panazip 7D-6, Secaucus, NJ 07094.

Winbook FX Pentium 150

The newly redesigned Winbook FX series features a more comfortable Windows 95 keyboard with full-sized keys and 3mm keyboard travel, 2MB video RAM, 8X CD-ROM, a 33.6Kbps internal fax/modem, and a 59-watt Litiuium ion battery. The palmrest has been restyled to accomodate the new, larger 87-key keyboard and includes redesigned pointer stick buttons and optional touchpad Available in five versions, the P150 top-of-the-line model features a 150MHz Pentium processor, 32MB EDO RAM, 265K synchburst cache, a 2GB hard drive, and a 12.1" active matrix color display. The options bay will accept a 3.5" floppy drive, a CD-ROM drive, or an auxiliary 36-watt Lithium ion battery. ($2999 to $4350) Winbook Corp., 4119 Leap Rd., Hilliard, OH 43026. 1-800-468-7205. ∎

Voyager Goes To ???

Multimedia Pioneer Faces Uncertain Future

Nobody really wants to talk about it, but, at the time of writing, Voyager, the prominent CD-ROM publishing company, is going through severe convulsions—convulsions stemming from the general problems of electronic publishing. That whole business arena is undergoing rapid but inconclusive changes, principally due to apparently endless technological churn, but also to the associated marketing ramifications.

In Voyager's case the convulsions include layoffs, consolidation of its offices from two floors of ▪ building to one, uncertainty about the direction of the company (information about future sales and whether the company would even have a presence at Macworld being unavailable at press time), and, most notably, the departure—voluntary ▪▪ otherwise—of Bob Stein, Voyager's long time figurehead and an original founder of the company. According to Voyager's statement, "Bob has left to pursue other interests." According to ▪ statement issued by Stein, "Two of the five partners of Voyager took over the management of

the company. One of their first actions was ▪ lay off nearly twenty full-time people, including almost the entire CD-ROM production and Internet publishing staff. Bob Stein left Voyager in the wake of this decision."

That alone would be convulsive enough— but Stein ends his statement with a direct quote

about those other interests he's pursuing: "I'm now talking with potential ▪▪▪▪ partners for Voyager who ▪▪▪ help take the company in the direction I envision."

In other words, Stein is attempting to re-takeover the company. Let the convulsions begin anew!

▪▪ in all, not a pretty picture ▪▪▪ not too surprising that no ▪▪▪ wants to talk about it—and there ▪▪▪ certainly ▪ ▪ words about it on the Web ▪ However, ▪▪ ▪ so often the case ▪ these situations, once conversation begins off-the-record and with a few "Don't quote me"s thrown in, reading between the lines of the official statements reveals ▪▪▪▪▪ details from the cracks between the ver-▪▪▪▪▪ Deduction eventually allows a reasonably clear picture to develop.

VOYAGER WAS RIGHT ON

▪▪ faithful and long-time readers of Multimedia 101 probably recall, I've been ▪ ▪ fan of Voyager and ▪▪ line of CD-ROMs. Its mix of serious general-▪▪▪▪▪ and literary titles with more

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entertaining cultural, musical and children's material was ■ daring and provocative approach in a business that mostly seems content to publish works dictated by market research and niche availability rather than any concern with the breadth of human knowledge or artistic expression. It's not that every Voyager title is incredibly good, but all the ones I've seen have at least some redeeming value and interest. They each have something to say; there's a purpose for their being published beyond CD-ROMs being the "next big thing" (which, believe it or not, they were once considered to be) or an efficient way to impart multimedia information (if, indeed, they are such a thing). Taken together, the range and number of Voyager's titles—seventy-five so far, with many industry firsts—is an impressive achievement; one that, to my knowledge, no other electronic publisher claims.

However, it was no secret—or it was at least much-rumored—that Voyager was perpetually short of cash and almost always on the verge of collapse. Supposedly, salaries for Voyager workers were substantially less than computer-industry norms, although probably not so out of-line with the standards of the publishing industry, where people tend to work for more idealistic reasons than stock options. A variety of rumors also circulated about Stein himself. Besides personal allegations made about him, the sort of messy gossip that always seems to attach to prominent people when a relationship ends, he was said to be difficult to work with. Of course, many people with unrealized but personally well-defined visions of the future meet the same criticism—and there's general agreement that Bob Stein has a vision of where electronic publishing should go.

Stein is also well-known for his awareness of the ongoing historical conflicts between capital and labor; conflicts that have been so skillfully papered over by mainstream media, particularly in the past half decade; conflicts that have never been given much attention in the computer industry with its stock options (although not for any assembly line workers that I've heard of), its perpetually rosy view of the engineered, technology-enhanced, networked future, and its very careful management of the truth in any information that ■ releases to the general public. Indeed, Bob Stein's generally Marxist-Leninist beliefs attract almost ■ much comment, usually negative, ■ his achievements.

Given the ongoing privatization and commercialization of the Internet, his views are not ■ extreme. In time, these issues and the concomitant loss of genuine public access and ready means of personal expression in favor of control by giant media corporations will likely cause his concerns to be recognized ■ prescient.

Regardless, Stein was running a capitalist publishing company. Voyager had reached about $12 million ■ year in sales and, according to Stein, "Over the last twelve years the company has made money in more years than it lost money."

Map of Treasures

Clockwise from above: *Sound Toys* song screen; *Treasures of the American Museum*; Voyager online order form.

VOYAGER Holiday Sale

Monday September 9 Thought and Testimony

Title	Regularly	Today	
			CD-ROM STORE

It's not that every Voyager title is incredibly good, but they each have something to say; there's a purpose for their being published beyond CD-ROMs being the "next big thing" or an efficient way to impart multimedia information.

It's no secret that getting money out of a Web site is harder than getting an old-line, Eastern-bloc despot out of power.

That was not enough. Voyager's convulsions were apparently induced by Stein's efforts to get Voyager to grow into a more substantial company.

BACKSTAGE AT VOYAGER

Voyager's problems can basically be divided into internal and external difficulties, but with an obvious symbiosis between them.

Essentially, the unsatisfactory general state of multimedia from a publisher's point of view makes it hard, if not impossible, to build a flourishing and continuing business without constant reevaluation and reinvention. Some people and companies are better suited to deal with this requirement of ever-evolving novelty than others. Either way, these conditions become extremely stressful and are not conducive to graceful behaviour, especially when there are underlying personality conflicts.

At Voyager, the stresses between the visionary side of Bob Stein and the cautious, more traditionally business-oriented team of two of his partners, William Becker and Jonathan Turell, built to a point of fracture. The rise of the Web is an easy culprit for the woes of CD-ROM publishers. Stein, however, sees the Web in a more balanced, even beneficial light, saying, "Obviously nothing could match the hype about CD-ROMs, and a lot of that attention gravitated to the Web. Some kinds of publishing may be [...] satisfactory on the Web, but a lot is still better on CD-ROM."

Stein believes that the Internet will not be ubiquitous [...] robust enough to replace people's perceived need for local, personal copies of media properties [...] another ten or even [...] ty years. However, Voyager was not exactly sitting on its hands waiting for that day. Stein had embraced aspects of the Internet in a strategic way. The Voyager site is updated on a daily

basis. Stein was making plans for downloading, and _only_ downloading—no physical distribution, the relatively small titles in the Expanded Books series, possibly even with booths at airports [...] travellers could pick up something to read on their laptop while in flight.

Voyager had developed its TRADES software to allow customers to pay for and download software from a secure server. CD-Link, a technology allowing the linking of audio CDs with Web pages, was another of Voyager's pioneering efforts to use the Internet innovatively. Hybrid CD-ROMs combining the best features of the Web with richer media are also in the mix. Voyager was the first to Web-cast a conference with the February 1996 Media and Democracy Conference in San Francisco, and also sponsors a number of other Web sites such as Laurie Anderson's Green Room and the Guerrilla Girls, self-dubbed [...] "the conscience of the art world." The promotional page for its Orson Welles' laserdiscs was even listed by _Internet Age_ as a Top Ten Entertainment Site. Stein is also planning a VoyagerLive site that will fall somewhere within that gray media area of Internet radio, publishing, and storefront, complete with audience participation.

Obviously all these plans, ambitions, and commitments need some form of currency to move from concept to reality. While Stein says that the differences with his partners were "not so much about money, but more about the direction of the company," he also admits that there is "no platform for [...] the current CD-ROM market" for titles such as Voyager's. And, again, it's no secret that getting money out of a Web site is harder than getting [...] old-line, Eastern-bloc despot out of power. Stein had figured [...] a strategy to deal with this—but it involved both further investment from his partners and that they accept a diminished role in Voyager's day-to-day business. That's obviously a task that would require a grand feat of diplomacy to accomplish; sometimes visionaries really do [...] be a bit [...] self-delusional than regular Joes!

TOOLS OF THE TRADE

Central to Voyager's woes, Stein believes, has been the lack of a really good set of tools for the sort of titles that Voyager publishes, titles that generally use a lot of words. Until recently, Macromedia Director really didn't support text in an adequate way, and Apple's fumbling of HyperCard is legendary. What this meant from Voyager's point of view is that it simply cost too much to produce a title given the limited market.

Originally, Voyager was a very Macintosh-oriented publisher. Once upon a time that didn't seem like such an idiotic thing to be. John Sculley made visionary pronouncements and Apple laid a lot of the early consumer multimedia groundwork with HyperCard, integral sound, QuickTime, and easy-to-add peripherals such as CD-ROMs. Apple had a marketshare worth noticing and it looked as though that marketshare would increase. Pretty much all the development tools were Mac-based and consumer Wintel machines weren't ready for multimedia anyway.

How things change!

As those things have changed, Voyager has attempted to follow. Much of its catalog was converted to run [...] Windows machines, and new titles run on both platforms. This was not, however, always easy. HyperCard was not originally developed to allow for cross-platform porting. Resources that could have been used elsewhere were diverted to the task.

Stein's strategy included development of new tools to allow for quicker and easier cross-platform authoring using multiple media types. Apple has announced that it will update HyperCard [...] that documents created with it will actually be QuickTime documents and thus playable on any machine that supports QuickTime. Voyager was set (and hopefully still is) to produce a set of electronic publishing tools in collaboration with Apple to take advantage of HyperCard's new abilities.

Beyond the issues of how to build its titles, Voyager grappled with the question of how to play them on. The unruly behavior of the Internet certainly interrupted the CD-ROM party, but [...] of the guests were muttering about how slow the service was anyway. Compare this year's machines with 8x CD-ROMs and processor speeds of up [...] 240 MHz—[...] faster than machines of only a couple of years ago with 2x drives and 60 MHz—perhaps

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MULTIMEDIA 101 *continued from page 164*

even fast enough to provide a media experience that begins to compare favorably with the analog world, an experience that we don't have to be charitable towards.

Stein also holds out hope for DVD as a viable medium. It is obviously well-suited for movies and other longer or bigger titles, offering substantial savings in manufacturing costs over 12" laser-discs, the medium Voyager currently uses for its Criterion Collection of movie titles.

THE FUTURE IS ALWAYS UNCERTAIN

Whatever else one might say about Stein, he was clearly aware that all his visions for Voyager had not been realized. He knew there was unfinished work to be done. He went back to the drawing board and took a good hard look at what needed to happen to get closer to what he wanted.

Unfortunately, he came up with answers that some of his partners did not like too much. The personality issues involved are unanswerable from this distance, but, let's just say that toes are always getting stepped on somewhere in the media business world.

Voyager is, if nothing else, a grand experiment in electronic media, an experiment that has not so far produced truly meaningful definitive results. In fact, the prologue to the real play has barely been delivered. I'd like to see what other lines Bob Stein can come up with in the next few years.

THE PRESENT IS NOW

A couple of recent Voyager titles show the range that Voyager encompassed. *Sound Toys* by C. Todd Robbins is another take on that Holy Grail of multimedia, interactive music. Basically, it consists of five screens or "songs," each with a striking graphic. As you mouse around or click on various parts, musical sounds ring out. It's really pretty neat, some of the "songs" are not only fun but also interesting to play. In a "song" you can drag your sounds around the screen, which is a promising advance in giving the user the ability to construct a really personal experience. You can record what you do. There's definitely been some hard thought put into *Sound Toys*, and its general design is successful.

Treasures of the American Museum of Natural History is at the other end of the many other ends of multimedia. Basically a guide to fifty of the museum's most interesting, spectacular, valuable, ingenious, or otherwise notable items, with video, sound, and text combined in a variety of ways, the CD-ROM does its job reasonably well, although somehow one's left with a desire for more—perhaps the actual trip to the museum. There are a number of smart features; in particular, the indication of relative size is worthwhile. However, overall I felt I was just accessing the same information presented in several different ways for each exhibit.

With a little luck, Voyager will be at Macworld and you'll be able to catch up for yourselves on developments. Otherwise, and in the meantime, check the Web site at *www.voyagerco.com* for further details, including some good demos, of Voyager's recently released titles. Buy and get some Voyager soon—they may just become collector's items though I certainly hope not. ∎

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Report From France, Part I

Sophia Antipolis— Silicon Valley, Riviera Style

The French Riviera justly evokes images of a warmly sophisticated quality of life and leisure. What lies beyond the beaches and cafes is the Provence-Alpes-Cote d'Azur techno industrial sunbelt and Europe's biggest science park.

Thanks to a loan of an Apple PowerBook Duo 2300C with a Global Village PowerPort modem from SF's MACadam (415/863-6222)—and with a Duo Dock Plus at home port—I was able to report on my travels and keep in touch with email, editors and school at least when the hotel of the day had a pluggable telephone connection.

While there, equally engaged in work and vacation, I got a close-up look at an existing array of advanced technology and multimedia in an setting that shares tastes and sensibilities with the San Francisco Bay Area.

The NUCLEUS of France's research and development in electronics, computer science, telecommunications, healthcare, biotech and multimedia is in Sophia Antipolis.

SILICON SUNBELT

The nucleus of France's research and development in electronics, computer science, telecommunications, healthcare, biotech and multimedia is in Sophia Antipolis. Located between Nice, Cannes and Antibes, its been conforming for twenty-five years, gracefully integrating a thousand-plus companies and 18,000 people into the natural contours of the Mediterranean

BY TONY DEVEREUX

REPORT FROM FRANCE continued

scape of 5,684 acres. ■ looks like a combination of UC Santa Cruz, a country club and Silicon Valley. This model science park has been achieved through a combination of efforts from national, regional, local and international resources. More R&D, as well ■ manufacturing and assembly, are pursued outside the park in areas such ■ Nice and Cannes, and aided and promoted by the Cote d'Azur Development.

Air France's San Francisco/Nice route is one of its most heavily-booked tickets. Many companies and startups have located here, attracted by the high-bandwidth installed network, financial incentives and connection to the international development community.

A NATION OF FIBER

Spearheaded by communications giant France Telecom, which is headquartered at Sophia Antipolis, this nation is determined to be all connected by fiber and ATM within the next few

years, starting here with the Provence-Alpes-Cote d'Azur region.

France Telecom has been ■ pioneer and an avatar for ATM (Asynchronous Transfer Model) which can run on copper as well ■ fiber ■ rates as high as 155 Mbps. This move ■ further supported by Telecom Valley, an association creat-

ed by AT&T, Texas Instruments, Digital, ETSI, France Telecom and Aerospatiale to bring together all the telecom activities of Sophia Antipolis and the Alpes-Maritime department. And then there's the EuroSud 155 Club, helping ■ create and deliver multimedia applications over high speed networks.

At present, France has 60,000 of CompuServe's four million ■■■■ worldwide, and 10,000 of America Online's 5.5 million. The ■■■-mated number of Internet users ranges between 100,000 to 200,000 but is expected to surge dramatically. Also drawing telecom companies ■ Sophia Antipolis ■ a quest for European partners ■ what might be termed the "fiber rush." Within the next year much of the promised communications deregulation will be enacted, with opportunities ■ everything from cellular and wireless ■ provider France Telecom is already 25% privatized.

We adjust to our exploding demand for ■■■-puter modems and cellular phones by adding

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REPORT FROM FRANCE continued

more area codes. Since October, in the French response to the same problem, all the phone numbers have gone from eight digits to ten. This will stretch their subscriber range well into the next digital century. Because France is, compared to the US, a small country, and has been dominated by one communications monopoly, France Telecom, they were able to do this all in one decisive action. We seem to be doomed to continue hop-scotching ____ patchworks of area codes forever.

THE THESEUS INSTITUTE

Besides its techno-industrial R&D emphasis, the Sophia Antipolis campus hosts many government, educational, nonprofit and think-tank

BUSINESS AND GRAPHICS ON THE NET

So you want to be part of the next digital wave of mercantilism and put your business on the Internet?

Building Successful Internet Businesses: The Essential Sourcebook for Creating Businesses on The Net by David Elderbrock and Nitin Borwankar (IDG Books Worldwide, 330 pp +CD-ROM, $39.99) won't give you that killer concept, but it can help you survey the real-world demands needed to get it up on the wires. They give examples of emerging businesses that ____ already there, and their sites. Most importantly, they lay out all the resources and skills that you will have to have (or hire someone to do) before you can front your store electronically. The accompanying CD-ROM holds a number of the development tools described in the text and will help ____ get you to the companion Web site.

Mikkel Aaland has been snapping photos since he could first hold ____ camera, so saw no reason to stop just because he learned how to use ____ computer for digital graphics and image manipulation. His book, *Still Images in Multimedia* (Hayden Books, 202 pp + CD-ROM, $45) is ____ excellent and definitive reference/workbook for acquiring, preparing and using still images in multimedia and on the Web.

He doesn't dodge the copyright issue when he gives tips for finding and capturing those images, and the section on preparing the image—digitizing, file formats, scanning, toning control and cataloguing—can help make that image worth saving. Aaland doesn't rest there; he shows and suggests many uses and applications for images, including sound and virtual reality. The CD-ROM is chock full of clips, tools and demos.

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concerns, all of which benefit from being able to plug into this underlying large-scale high-bandwidth network. The Institute Theseus initiates and conducts various projects in knowledge management.

Director Ahmet Aykac, born in Turkey and ■ veteran of teaching economics at Columbia, heads the high-echelon Action Learning program, which encompasses tailored management education and MBA programs for large multinational firms. "Most clients come from referrals and word-of-mouth," says Aykac. "Because of the complexity of the planning and the logistics, it usually takes a gestation period of about a year between inquiry and implementation."

The budgets can range from $100,000 for a small pilot program to millions for a long-range program for a large corporation which involves moving many people around. but "Realtime point-to-point videoconferencing provides great economy over travel and continues the education process."

The relationship with France Telecom that comes with the territory at Sophia Antipolis has

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>
> The estimated number of Internet users ranges between 100,000 to 200,000 but is expected to surge dramatically.

allowed Theseus to co-develop communications with clients on dedicated lines for telecommunications and teleconferencing, such as the T1 lines to South Africa "In order to do the ▬▬ thing elsewhere," explains Aykac, "the amount of investment I would need and the amount of overhead that I would have to build into the organization would just become very large."

Revital Marom, ■ Israeli-Canadian senior research scientist at Theseus, has been involved with groundbreaking new media grassroots startup projects. Instead of Aykac's corporate types, she has brought this new technology to modern-day "peasants" — young farmers in Greece and Southern Italy.

These countries have very strong and versatile agricultural unions, which provide sections for young people ▬ the village level to ▬▬ social and educational needs. Because of Greece's rough and, rocky terrain, there is infrequent visiting between the groups. Today every household with children above grade four has a PC, because they ▬ all studying with computers.

Leveraging off this national PC installed base of 60%, Theseus met with the unions, government agencies and other interested parties to create and test prototypes for communication and distance learning links between the villages and the schools and universities.

"Three years ago we started with the Internet over POTS," recalls Marom. "Then we chose to develop it as groupware with Lotus Notes and as an intranet. Now with ISDN the videoconferencing is possible for teleconsulting and teleteaching. Already ██ have ████ people using the facilities within the development phase. By next year we will probably come up to from 5,000 to 6,000 people using the system."

RELATING INTERNATIONALLY

To European and Japanese businesses, analyzing your administrative style and then changing it to be more efficient is still often an abstract concept. At its large European branch office,

Anderson Consulting presented demonstrations of some of its successes, and reified the internationalism that has made Sophia Antipolis work, and which in turn helps work their business.

Gunter Schmidt Taube, ██ managing director and ██ German, made ███ interesting statement that was backed up by his French and British co-workers ██ the room: "Technologically, America ██ still three ██ five years ahead of Europe, especially in its rate of advancement." He emphasized that Europeans were advancing more all the time, "even if we don't quite catch up."

FRANCE 1996/1906

I observed contrasting evidences of these running rates of change reflected in everyday life in France. At many restaurants, including some small rustic cafes, the waitperson brings to the table a handheld combination calculator, card reader and printer for "l'addition." Yet, when I went to ██ Cote D'Azur office of the SNCF, the national railway, to buy a ticket, there was a pause of déjà vu. The energetic woman may have had the fastest single finger in the town of Hyeres to peck ██ the computer's keyboard, but

Technologically, America is still three to five years ahead of Europe, especially in its rate of advancement. Gunter Schmidt Taube emphasized that Europeans were advancing more all the time, "even if we don't quite catch up."

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REPORT FROM FRANCE continued

Still Images in Multimedia is an excellent and definitive reference/workbook for acquiring, preparing and using still images in multimedia and on the Web.

when she referred to the schedule, it was to a thick spiral-bound note book completely hand-written in different colored inks that was still comfortably stationed in 1906.

ENGLISH, TONGUE OF THE WIRED

Until the post-World War II Marshall Plan era, French was the international language of diplomacy, art, science and the military. What became eminently clear on this visit is how completely English has become the international language of business and high technology, here as in Japan. If you cruise the Internet, you know that English is the dominant language of Web sites. That is just the tip of the communications iceberg.

After Paris, the Cote d'Azur is the most international region of France, with 12% of the population being foreigners—including 4,000 North Americans. Over 100,000 subscribe to English-language print. I enjoyed listening to the English-language program provided for all the ex-pats and internationals, heralding each broadcast with: "It's (ta-dahh!) Radio Riviera!" Their BBC-based analyses of French politics reports charges such as "...empty-headed socialism!" And in the local French paper, indignant alarm is being raised that "...there are chefs that are allowing spices and herbs from Asia and other parts of the world to threaten the purity of *la cuisine classique*!" Welcome to Continental Californian.

NEXT MONTH "REPORT FROM FRANCE II: Sophia Antipolis—Startups and Successes" ■

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MICROTIMES • JANUARY 3, 1997

Views

Industry Insights

Macs, they are slow and expensive. Apple appears to have turned its back on the under-$2000 portable market, which could have a very negative effect on sales to universities and small businesses.

Apple's decision to allow some manufacturers to clone the desktop Macintoshes has been very positively received by Mac users. There are only a few problems with compatibility, and the number is probably less than the number of compatibility problems seen with some Apple-branded computers.

> Apple has not allowed vendors to sell portable Mac clones, and has no plans to start licensing them any time soon.
>
> This means that the Mac portable market will remain high-priced for at least six months, more likely a year. This will not itself make Apple crumble, but it does lead you to wonder.

However, Apple has not allowed vendors to sell portable Mac clones, and has no current plans to start licensing them any time soon. This means that the Mac portable market will remain high-priced for at least six months, more likely a year.

This blunder will not itself make Apple crumble. It does lead you to wonder how they think they can get new users if they price their new hardware far above the typical cost for medium-powered PCs. Further, given that Macintosh has always been touted as good for education, it seems incredibly short-sighted to not have any low-cost portables in the works. Apple has proven in the past that it can easily create these systems, to not do so now shows poor judgment at a few levels of the corporate chain.

The Internet Will Help Save Apple, And Vice Versa

One thing that will keep Apple strong this year is the fact that its Internet offerings are pretty good, and in many ways much better than Microsoft's. Ask any Internet Service Provider which of Open Transport or Windows 95 is easier to set up for SLIP or PPP service, and you'll hear near-universal praise for Open Transport. The fact that Microsoft continues to sell Windows 95 with such impossible-to-setup Internet access shows that they are still slow to understand what the low end of the Internet market is.

Apple can't rest on its laurels, however. Recently, Apple's software division Claris participated in an amazingly stupid lawsuit against three Internet Service Providers, helping to give Apple a black eye with a group that Apple badly needs as supporters. The suit was dropped when it became clear that it was a ham-fisted attempt to force ISPs to become cops, something that any sensible ISP would refuse to do. The whole episode shows that Apple may have more of a clue than Microsoft about the Internet, but it still has some pretty major holes in its thinking.

Given that the next wave of Internet users will probably know a whole lot less about computers than the current crowd, Apple stands to gain market share as long as it can provide computers that these new users can afford. Microsoft still has a long way to go on ease-of-use, particularly for Internet access, and Apple can turn this into a long-term market, particularly among users who want to get on the Internet for their kids. Apple's position isn't particularly strong right now, but it has plenty of opportunity to make inroads in places that Wall Street isn't looking.

MICROTIMES INDEX SURGES TO RECORD HIGH OF 8341.27

Powered by double-digit percentage gains by 16 of the 29 stocks in the nearby table, the Microtimes Stock Index rocketed into uncharted territory during the six-week period ended December 12. Specifically, our index took wing to the tune of 1,025.11 points, or a heart-pounding 14.01%, en route to a record high of 8341.27. ■ Setting the new mark the MicroTimes Index eclipsed its old record high of 7945.37 set on December 13, 1995

Shares of semiconductor companies were especially white-hot last month after the Semiconductor Industry Association said its book-to-bill ratio rose to 1.15 in November from 1.11 in October. That news opened the floodgates for CPU manufacturer stock sales

Advanced Micro Devices topped the leaderboard with a resounding 53.9% rally to $27.13, taking largest percentage-gained honors as a result. Many Wall Street firms were singing their praises for AMD and the semiconductor group, saying positive earnings surprises ■■■ in store for investors and that the stocks are not overpriced despite their continued upward trajectory

Intel's stock price gained $29.13 during the six-week period and has doubled in the last six months, to close ■ an all-time high of $136.88. Many Wall Street analysts are now projecting the stock to trade between $160 and $200 a share in the very near future "Based ■■■ the simplest method," said Scott Bleier of ■■ investment strategist at Prime Charter Ltd. "It's trading at a lower multiple ■■■ its growth rate."

"There is ■ ferocious end-of-the-year deployment of funds going into technology and right now every mutual fund in the world must own Intel." Bleier said. "If any ■■■ has any technology representation they must own Intel." For the six-week period Intel was the largest dollar gainer ■ the ■■.

Dell Computer was also popular with investors last month, rising a brisk 53% to $57.25. Last month the company posted its 11th consecutive quarter of record-breaking revenues for its third fiscal quarter ended October 27. Specifically Dell's sales soared ■■■ to $2.02 billion from the year ago quarter

As ■ result of the protracted bull run for high-tech stocks, three companies completed 2-for-1 stock splits last month to make ■■■■ ■■■ affordable to purchase. The companies Microsoft Dell Computer and ■■ Microsystems ■

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Solutions

Computer of the Month

Toshiba's Satellite Pro

It is always

a pleasure to examine a new Toshiba portable computer—it is invariably filled with the latest and most advanced technology. This month, I examine a new mid-range multimedia system. The Satellite Pro line is targeted to those people who are concerned about cost, but still want the latest technology.

The Satellite Pro 420CDT, just a step below the top-of-the-line Toshiba Tecra series notebooks, is filled with an array of the newest multimedia features. Powered by a 100MHz Pentium processor, it comes standard with 8MB of RAM, expandable up to 40MB, and a 1.26GB hard disk. The display is a generous 11.3" high resolution active matrix screen, although a dual-scan display ▦ available for some Satellite Pro configurations.

Some of the capabilities included here I have not yet seen elsewhere. For instance, with the Satellite Pro there is no need to carry around a bulky power supply. Rather, it come built-in as standard equipment. Simply plug in the power cord and you are in business.

While I like much about the Satellite Pro, I still have a few reservations. The keyboard, while an excellent layout, lacks the special Microsoft keys I have ▦ depend on. These ▦ keys offer time-saving shortcuts for many

programs. On the other hand, if you attach an external keyboard, you will find that Toshiba has built in ▦ way for you to simulate the Fn key on a full-size keyboard. Since I always prefer ▦ work on a full size keyboard, this ▦ a real advantage. Portables let you control lots of functions with the Fn key and I ▦ this when I attach a full-size keyboard ▦ other portables.

Toshiba has chosen an AccuPoint pointing device over the touch pad many manufacturers are using these days. I find the AccuPoint OK

once you get used to it, but I still prefer a mouse, which you can attach via the serial port. When you are on the go, however, a mouse is simply not practical.

While the Satellite Pro shines ▦ many areas, its multimedia capabilities are its greatest strength. This is the first portable I have examined that really lets you take advantage of the emerging MPEG-I standard. MPEG—which stands for Moving Picture Experts Group—lets you view CD videos at a full ▦ frames per second and get near-TV quality display covering the full screen. Even though the display on the Satellite Pro is high resolution, the "TV quality" image was that of a 15-year-old color TV, not that of a bright top-of-the-line television. In any case, you no longer have to put up with jumpy video. While it is easy to operate this new multimedia setup, it takes a lot of elements to make the system work correctly.

First, Toshiba includes a 6X CD-ROM drive in the system. This drive, by the way, ▦ removable and housed in a bay that can hold a floppy drive if you prefer. The thing that I like about Toshiba's arrangement, however, is that the floppy drive also ▦ in a housing that connects by a cable ▦ the side of the computer so you can have both ▦ floppy and CD-ROM drn ▦ operate at the ▦ ▦ ▦ you like.

In addition to a good CD-ROM drive, MPEG requires that the PC Card slots conform to ▦ new Zoomed ▦ specifications ▦ lets you

> The Satellite Pro line is targeted to those people who are concerned about cost, but still want the latest technology.

Laptops *continued*

use any of the older PC cards but also allows you to use newer cards that work with this standard. Finally, you need an MPEG-1 Playback PC Card ($299). This card handles translating the highly compressed data found on the CD-ROM into data that can be displayed. These new CDs compress data at something like 200 to 1.

Audio is also reproduced at CD quality. The Satellite Pro has a built-▓ speaker, but for good sound quality you will need to ▓▓▓ external speakers. The Satellite Pro has Sound Blaster compatible 16-bit audio. All in all, the multimedia capabilities of this system move into ▓▓▓ territory.

> *With the Satellite Pro there is no need to carry around a bulky power supply. Rather, it comes built-in as standard equipment.*

In addition, there is a port for connecting ▓ Port Replicator ($399). This is ▓ great addition if you like to work with an external monitor and keyboard and the like. Just unplug the computer from the replicator and leave all of your accessories connected to the replicator which stays at home.

Gobs of software come with the unit, ranging from Windows 95 to software for managing audio and video CDs. Many utilities are quite useful. For instance, one of the files found ▓ the utilities is a complete electronic User's Guide. Toshiba offers excellent documentation, filling a book of over four hundred pages. You can get around in the book quite easily. It ▓ certainly not necessary to read the entire manual, but ▓ you are new to computers you will find the volume quite useful. When ▓▓▓ are on the go however, you can access the entire guide on the ▓▓▓▓. The electronic version comes with hypertext so you ▓▓▓ easily jump from ▓▓▓ subject to other related subjects with the click of the mouse button.

Toshiba offers a standard parts ▓▓▓ labor warranty which can ▓ extended to three years. In addition, there is unlimited technical assistance around the clock on a toll-free number.

This is a formidable machine that has many other features beyond what I have touched ▓▓ If you ▓▓ looking for a multimedia machine you owe it to yourself to consider ▓▓▓ Satellite Pro 420CDT. ▓

RESOURCES:

Satellite Pro 420CDT, $3299
Toshiba America Information
Systems, Inc.
P.O. Box 19724
Irvine, CA 92713-9724
1-800-999-4273

Solutions

One is the financial planner, which claims to give you a quick look at the financial future in just fifteen minutes. I gave it more like a half an hour. While I did not get all the advice I might have wanted, that was because I did not have all the information I needed to put into the program. That in itself is valuable intelligence—I now know what I need to find out.

While the center of Quicken is the checkbook, the center of the Financial Planner is the interview. The program queries you about what you have in the bank, and what you are putting away. It asks what you expect to put away in the future, and at what income you hope to retire. (Large, please!) Then it asks the risk level at which you are willing to invest. From this information it gives you an estimate of your condition: Will you be able to retire at this level? Will your money last until your likely date of death? No matter what the answer, it gives you action steps to take to achieve your goal.

The Quicken Financial Planner also connects to the Quicken Financial Network. The value of your investments depends on the ebbs and flows of the financial markets, so it does make sense to be able to monitor them online.

All this is necessary because small business people must do their own financial planning, or end up in the hands of professionals. Even if we are trusting someone else to make financial decisions for us, it is worthwhile to check their work from time to time. I speak as a person who trusted a professional tax-preparer and then checked his work. Turns out he had neglected to deduct state taxes. When he corrected that error, he left unchecked the box which said I could document my business expenses. Yes, it is worth monitoring the professionals, and for that alone the Quicken Financial Planner could be invaluable.

Despite my bad experience with my former tax person, I would recommend using the Financial Planner in conjunction with professional help. The online help—including video clips of Jane Bryant Quinn—is just not going to answer all your questions. Let one source be a check on the other.

QuickBooks

Many a small business has been operated from Quicken itself. But the time comes when you need to graduate to a larger and more complex package.

QuickBooks is designed for that task. I looked at a late beta of QuickBooks Pro 5.0, which is a simple bookkeeping system for a small or medium-sized business. It turns out that they have built the same help for tyros into QuickBooks that they put into their home software. This is certainly a professional product, but it is designed for the owner-bookkeeper who has no accounting experience.

There is an extensive introduction that gives you an overview of QuickBooks, with voice and pictures. When you open the program itself, and click on anything for the first time, an explanation box comes up. You can choose not to see this information again, or let it return if you think you will need the reminder.

QuickBooks Pro offers an overview of how to adapt the software for your industry. Many people have used the program in the past, so why re-invent the wheel? Like the Financial Planner, QuickBooks helps you customize the program through an interview. It uses the information about your industry to suggest what most users in that business will need in their accounting system.

It took about half an hour to complete the interview for my small company. At the end of it I had the income accounts made and labeled; expense accounts had been created, subcategorized and connected to tax schedules; and the basic reports were in place. I was ready to go. Those elements of a bookkeeping system which I did not need had been folded away. When QuickBooks discovered during the interview that I have no employees, all the employee and payroll sections of the program hid themselves.

A large number of reports are included with QuickBooks: invoices, purchase orders, job estimates, profit and loss statements, and others. You can of course create and modify reports as you need to. You can also run more than one company with QuickBooks, an advantage for those of us who have several things going on at once.

QuickBooks offers a timer utility that will be a tremendous help to people who must bill for their time. You can run it when you are not running QuickBooks, and it will keep track of the time you spend on various projects. The data can then be carried into QuickBooks for later billing.

You will not be surprised that QuickBooks

also connects with QFN and with your bank, so you can make electronic transactions. Finally, there are taxes. QuickBooks will prepare an accountant's copy for you to take to your friendly CPA.

With QuickBooks you can set up accounts for customers and keep track of orders, sales, invoicing and bills paid. You can track employees and other costs, and keep a list of your inventory. You can maintain a database of customers and have a calendar-related to-do list for your business. Much of what you need to do in your business can be handled from this single program. QuickBooks will do for your company the same thing that Quicken will do for the home: it gives you a handle on your financial information. Beginning with a small and comprehensible example, it holds your hand while you build exactly the system you need. In the end, you will have created a quite powerful business accounting system. The intimidation you began with is gone. ■

Solutions

The Making of continued from page ■

only two times you'll ever get free legal advice: When you're interviewing law firms and when you get arrested and the court appoints one to you.

Can't help you with the second situation, but I recommend that you prepare for the first one ■ advance. By preparation, I mean, from the moment you've finished reading this article, write down all of the legal questions you may have. (As mentioned above, going through the incorporation process will bring up ■ few questions if you need a starting place.)

When picking a law firm, try to find someone that you genuinely like (OK, insert lawyer joke here) and one that you feel knows *your* business. Believe ■ or not, legal representation shouldn't just be about crossing the "i"s and dotting the "t"s (see how easy it is to change the material meaning of a phrase?), but also about helping you with the "I don't know what I don't know" aspects of contract and legal advice Believe me, the only way ■ lawyer will know this stuff ■ if they've been around *your* block ■ few times.

In an hour and-a-half interview, you should be able to ask thirty minutes' worth of solid advice. (A lot of the interview will be the lawyer interviewing *you*, ■ at least trying to get a grasp on your business, your ability to pay your bills, etc.) You should interview at least two or three firms (get recommendations for four or five and whittle it down). The suit you're interviewing usually charges about $300 bucks an hour, which means overall you'll get about $300-$400 worth of free, general-purpose legal advice.

Tip: Don't jerk lawyers around. Only talk ■ them if you ■ seriously considering hiring a law firm, which doesn't necessarily come at the start of ■ business. (iPrint has been around most of 1996 and we're only now interviewing law firms.

Getting Free Accounting Advice

Follow the same advice as above. Since legal and accounting issues often mix, try alternating interviews. Doing ■ may bring up additional legal and accounting questions (which you can ask the appropriate interviewee for free), or you may want to see how the different firms tackle the same question.

■ $200 an hour, you might be able ■ get ■ couple hundred dollars' worth of free general advice

Tip Same tip ■ before—don't jerk accountants around. However, you might want to interview them a bit earlier in the process, since putting your company's tax status in place is ■ important part of incorporating.

Almost ■ The $1 Million Level. Not!

By my calculations, we're still about $995,000 away from that $1 million savings mark. (It would be nice to be big enough by now that we could call it ■ rounding error, eh?) Don't despair. I started with the smaller stuff on purpose. Next up are some fun targets: office space, equipment, hiring, company valuation, and ■ on ■

Wang ▓▓▓ Wong
Computer Science Instructor
California State University, Dominguez Hills
One of Professor Wong's students brought him to our attention, saying "Dr. Wong is by far the best teacher I've ever had. He knows his stuff, and makes sure that his students understand what he's trying to teach. He goes beyond just teaching the class material. He includes real-life scenarios of how we, as computer science students, will fit into the job world." We're happy to join ▓▓ the well-deserved applause.

▓▓▓ Wrixon
Director
BMUG
www.bmug.org
Longtime readers already know that we think BMUG is a major force for good, and it's now officially the world's largest computer user group. Reader Thom Kwiatkowski of Oakland singles new director Wrixon out for particular praise for 1996, citing not only her achievements making the group's huge array of member services more accessible, but for such community outreach endeavors as collecting computers for distribution to families that otherwise couldn't afford them.

▓▓▓ Yoshida
CEO and Managing Director
Trans Data Systems
http://www.webworldinc.com/transdata
Yoshida is an entrepreneur on a global scale, involved in import/export of products from video cameras to pharmaceuticals. However, a quick visit to his home page reveals him as the sort of Amiga zealot that kept this deserving platform going in the face of major adversity, and his employees recommended him to our attention for his work putting Amiga technology to work in local schools.

▓▓▓ Zimmermann
Author
Pretty Good Privacy
www.pgp.com
His trouble with ▓▓ feds started when (despite sporadic attempts ▓▓ ▓▓▓ ▓▓▓ ▓▓ Clipper) a hapless populace then decided not to prosecute ▓▓▓ PGP author for uploading the free secure cryptography program to the Internet. Zimmermann was ▓▓▓▓ by investors Jonathan Seybold ▓▓▓ Dan Lynch ▓▓ come to California start a compa... ▓▓▓ make his software commercial shortly. ▓

‹▓ M▓▓▓▓▓▓ ▓▓▓▓▓▓ ▓▓

Looking Back
The First MicroTimes 100

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Interface Group
Chairman of the Board

Victor Alhadeff
Egghead Software
President

Alan Ashton
WordPerfect
President

Bill Atkinson
Apple Computer
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Leo Berenguel
Peripheral Land
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President

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Marc Canter
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Dennis Chang
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Neil Colvin
Phoenix Technologies
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Chris Crawford
Programmer

Cliff Cummings
PC Kwik
Product Manager, Future

Fred Davis
A+ Magazine
Editor-In-Chief

Michael Dell
PCs Limited/
Dell Computer
CEO & Chairman of the Board

Brian Dougherty
Berkeley Softworks
Founder & CEO

John Dvorak
Columnist

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SuperMac
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Martin Engel
Apple Computer
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Symantec
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Tim Farris
Bizca Research
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Mark Flanagan
General Computer
VP Marketing, Sales, and Service

**David, John,
and Randy Fry,**
Founders
Kathryn Kolder
Director of Computer Operations
Fry's

Jean-Louis Gassée
Apple Computer
Senior VP of Research and Development

Bill Gates
Microsoft
Cofounder & Chairman
Co-Man of the Year

Charles Geschke
Adobe
Executive VP

Rick Gibson
The Consortium, Inc.
President

Nat Goldhaber
Centram Systems West
President

Carl Gritzmaker
Higer
CEO, Founder?

The Tenth Annual MicroTimes One Hundred

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Atari
VP of Software

Trip Hawkins
Electronic Arts
President

Andy Hertzfeld
Programmer

Dave Hughes
Chariot Conferencing

Steve Hui
Everex
President

Kazuo Ishiguro
Toshiba
President of the Industrial
Electronics Business Sector
of Toshiba America

Bill Joy
Sun Microsystems
VP of Research and
Development

Philippe Kahn
Borland International
President & CEO

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G.O Corporation
▬▬▬▬ ▬ ▬▬ Board of
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Acius
President

David Kay
Kaypro
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L. William Krause
3COM
Chairman & CEO

Ned Lautenbach
▬▬▬
IBM VP, President, National
Distribution Division

Jan Lewis
Columnist

William Lohse
Ziff-Davis
Group Publisher

William Louden
General Electric, GEnie
General Manager of GEnie

Gilman Louie
Nexa
CEO

William Lowe
IBM
IBM VP, President Entry
Level Systems

Bill Machrone
PC Publisher

Marshall Magee
Magee Enterprises
President

Tom Maremma
Infinity
Software President

Duane Maxwell
Levco
Hardware Engineer

Patrick McGovern
IDG Communications
Chairman & ▬▬▬

Scott McNealy
Sun Microsystems
President & CEO

Brock Meeks
Columnist, BIX Moderator

John Meyer
Venture Software
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Fred Michael
Zenith Data Systems
Director Market
Development and Education

Larry Michels
SCO
President

Gwen Moore
California State
Representative

Theresa Myers
Quarterdeck
President

Ted Nelson
Project Xanadu

Raymond Noorda
Novell
President

Adam Osborne
Paperback Software
International
President & CEO

Glenn Patch
MacWeek, Patch
Communications
Chairman, Patch
Communications

Aubrey Pilgram
Author

Ron Posner
Borland, Ansa
Borland Executive ▬▬ ▬ ▬▬▬
Ansa President & CEO

Dan Pote
Applied Engineering
President

Jerry Pournelle
Columnist

Safi Qureshey
President & Cofounder
Albert Wong
Executive VP & Cofounder
Thomas Yuen
Executive VP & Cofounder
AST

Jeff Raskin
Information Appliance
President & CEO

Wayne Ratliff
Migent
Chief Scientist/Consultant

John Roach
Tandy
President & CEO

Heidi Roizen
T/Maker
President

Ben Rosen
Sevin Rosen Management
Venture Capitalist

Jonathan Rotenberg
Boston Computer
Society
President

Todd Rundgren
Musician

Edwin Rutsch
SF XT/AT
Clone User Group
Cofounder,
Honorary President

John Sculley
Apple Computer
Chairman & CEO
Co-Man of the Year

Dan Silva
Electronic Arts
Research Fellow

Victoria Smith
The Computer Show
Founder

Jack Tramiel
Atari
CEO

Sam Tramiel
Atari
President

John Walker
Autodesk
Chairman of the
Board

▬▬▬ Wallace
QuickSoft
President

John Warnock
Adobe
President

Ken Wasch
Software Publishers
Association
Executive Director

Scott Watson
▬▬ Ryder
Author

Tom White
Seybold Seminars
Chairman & CEO

Honors, Dubious And Otherwise, c. 1988

Barely-There Ware
- OS/2
- A/UX
- FullWrite
- Xanadu

The Year's Worst
- OS/2
- PS/2
- The Lotus Look and Feel Suit
  Against Osborne's Paperback
  Software
- Leisure Suit Larry ▬ ▬▬▬ Land of
  Lounge Lizards
- Japan Bashing
- The FCC
- Copy protection

▬▬▬▬ Year's Story?
Tom Leonard
President, TML Systems

On ▬▬▬ Horizon
Max Toy, President of
Commodore Business Machines
Stephen Beck, Beck-Tech
Phil Sih and John Little,
Portal Communications Company
Steve Wozniak, CL9

Organizations
BMUG
SEF
Computer Learning Month
The WELL

✈Resources

Calendar Of Events

Conferences, Shows, Special Events

January

January 1 Computer Marketplace. Sherman Square Entertainment Center, Reseda. National Productions. Contact: 1-800-800-5600.

January 4–5 Computer Super Shows. O.C. County Fairgrounds. Super Show Productions. Contact: (714)459-6105.

January 5 Computer Marketplace. Sequoia Conference Center, Buena Park. National Productions. Contact: 1-800-800-5600.

January 6–10 1997 Annual Technical Conference on UNIX and Advanced Computing Systems. Anaheim. Contact: (714)588-8649.

January 7–10 MACWORLD Expo Conference. San Francisco. Contact: 1-800-315-1133 or URL: http://www.mha.com/macworldexpo .

January 11 Computer Marketplace. Earl Warren Showgrounds, Santa Barbara. National Productions. Contact: 1-800-800-5600.

January 11–12 Computer Super Shows. Riverside Convention Center. Super Show Productions. Contact: (714)459-6105.

January 18–19 Computer Marketplace. Fairplex Expo Center, Pomona. National Productions. Contact: 1-800-800-5600.

January 22–25 Medicine Meets Virtual Reality:5. San Diego UCSD School of Medicine. Contact: (619)749-2498, mmvr@amainc.com , or URL: http://www.amainc.com/amainc .

January 22–25 Global Healthcare Grid: Transformation of Medicine through Communication. San Diego UCSD School of Medicine. Contact: (619)751-8841 or URL: http://www.amainc.com/amainc .

January 25–26 Computer Marketplace. Henderson Convention Center, Las Vegas. National Productions. Contact: 1-800-800-5600.

January 25–26 Computer Super Shows. Glendale Civic Auditorium. Super Show

JANUARY 18–19
Computer Marketplace
POMONA

Produced by National Productions, Inc., for over thirteen years, Computer Marketplace covers 100,000 square feet with over 300 exhibits featuring multimedia systems, notebook computers, software titles, modems, and other peripherals at discount pricing. Open 10-5 pm, admission $8. For more information, call 1-800-800-5600, or URL: http://www.computermarketplace.com .

JANUARY 7–10
MACWORLD Expo
SAN FRANCISCO

MACWORLD Expo/San Francisco promises to be the largest Macintosh-focused technology event on the West Coast. The expo will feature keynote speakers such as Apple Fellow Guy Kawasaki and Apple Chairman/CEO Dr. Gil Amelio, who, along with a host of other speakers, will discuss the Mac's future and also the computing world's hottest topics, including the Internet and World Wide Web. Vendors and developers will also be on hand to display the latest in Mac-based publishing, illustration, audio/music, multimedia, connectivity, operating system, and telecommuting technology. Nick Demartino of the American Film Institute (AFI) will also discuss how computers, and specifically Macs, have reinvented Hollywood's film industry. For more information, call 1-800-645-EXPO, or URL: http://www.mha.com/macworldexpo .

Productions. Contact: (714)459-6105.

January 27 ACP Computer Swap Meet. Santa Ana. Super Show Productions. Contact: (714) 558-8813.

January 29–30 SoftEx in Accounting and Finance. Los Angeles. Contact: 1-888-8-SOFT-EX, register@softexusa.com , or URL: http://www.softinfo.com .

February

February 1 Computer Marketplace. Sherman Square Entertainment Center, Reseda. National Productions. Contact: 1-800-800-5600.

February 1–2 Computer Super Shows. The Chatsworth Marketplace. Super Show Productions. Contact: (714)459-6105.

February 2 Computer Marketplace. Sequoia Conference Center, Buena Park. National Productions. Contact: 1-800-800-5600.

February 3–6 ComNet Conference and Expo. Washington, D.C. Contact: 1-800-545-EXPO or URL: http://www.mha.com/comnet/ .

February 8–9 Computer Marketplace. Fairplex Expo Center, Pomona. National Productions. Contact: 1-800-800-5600.

February 9–12 Demo '97. Indian Wells, CA Contact: 1-800-633-4312.

February 12–14 Professional/Scholarly Publishing Division's '97 Annual Conference. Washington, D.C. Association of American Publishers, Inc. Contact: (212)255-0200

February 15 Computer Super Shows. Glendale Civic Auditorium. Super Show Productions. Contact: (714)459-6105.

February 16 Computer Super Shows. Riverside Convention Center. Super Show Productions. Contact: (714)459-6105.

February 22–23 Computer Marketplace. Fairplex Expo Center, Pomona. National Productions. Contact: 1-800-800-5600

February 22–23 Computer Super Shows. O.C. County Fairgrounds. Super Show Productions. Contact: (714)459-6105.

February 27–March 1 Sunbelt Computer & Graphics 1997. Atlanta, GA. Contact: 1-800-330-7491 or URL: http://www.sunbeltshow.org .

Resources

March

March 1 Computer Marketplace. Sherman Square Entertainment Center, Reseda. National Productions. Contact: 1-800-800-5600.

March 1-2 Computer Super Shows. The Chatsworth Marketplace. Super Show Productions. Contact: (714)459-6105.

March 2 Computer Marketplace. Sequoia Conference Center, Buena Park. National Productions. Contact: 1-800-800-5600.

March 8-11 1997 SXSW Multimedia/ Interactive Festival. Austin, TX. Contact: sxsw@sxsw.com , or URL: http://www.sxsw.com .

March 8-9 Computer Marketplace. Henderson Convention Center, Las Vegas. National Productions. Contact: 1-800-800-5600.

March 8-9 Computer Super Shows. Glendale Civic Auditorium. Super Show Productions. Contact: (714)459-6105.

March 15-16 Computer Marketplace. Fairplex Expo Center, Pomona. National Productions. Contact: 1-800-800-5600.

March 18-20 Internet And Electronic Commerce Conference And Expo. New York, NY. Contact: (203)256-4700, iec@expocon.com , or URL: http://www.expocon.com/iec .

March 18-22 Technology and Persons with Disabilities. Los Angeles. Center on Disabilities, California State University, Northridge. Contact: (818)677-2578, LTM@CSUN.EDU , or URL: http://www.csun.edu/cod .

March 22 Computer Marketplace. Earl Warren Showgrounds, Santa Barbara. National Productions. Contact: 1-800-800-5600.

March 22-23 Computer Super Shows. O.C. County Fairgrounds. Super Show Productions. Contact: (714)459-6105.

March 23 ACP Computer Swap Meet. Santa Ana. Super Show Productions. Contact: (714)558-8813.

March 25-27 Communication Design Engineering Conference. Washington, D.C. Contact: (617)821-9210 , cdec@exporg.com .

March 29-30 Computer Super Shows. Riverside Convention Center. Super Show Productions. Contact: (714)459-6105.

April

April 5 Computer Marketplace. Sherman Square Entertainment Center, Reseda. National Productions. Contact: 1-800-800-5600.

April 6 Computer Marketplace. Sequoia

Conference Center, Buena Park. National Productions. Contact: 1-800-800-5600.

April 8-10 American Programmer Summit '97. Boston, MA. Contact: 1-800-888-1816, lovering @cutter.com , or URL: http://www.cutter.com .

April 12-13 Computer Marketplace. Henderson Convention Center, Las Vegas. National Productions. Contact: 1-800-800-5600.

April 19-20 Computer Marketplace. Fairplex Expo Center, Pomona. National Productions. Contact: 1-800-800-5600.

May

May 3 Computer Marketplace. Sherman Square Entertainment Center, Reseda. National Productions. Contact: 1-800-800-5600.

May 4 Computer Marketplace. Sequoia Conference Center, Buena Park. National Productions. Contact: 1-800-800-5600.

May 6-8 On Demand Digital Printing and Publishing Conference. New York. Contact: (203)256-4700, ext. 119 or URL: http://www. expocon.com .

May 17-18 Computer Marketplace. Fairplex Expo Center, Pomona. National Productions. Contact: 1-800-800-5600.

May 31 Computer Marketplace. Fairplex Expo Center, Pomona. National Productions. Contact: 1-800-800-5600.

Classes, Seminars, Workshops

January

January 3-4, 17-18, 31 Microsoft Course 540: Supporting Microsoft Windows 95. Los Angeles. UCLA Extension. Contact: (310)825-4100

January 4-February 1 Microsoft Course 687: Supporting Microsoft Windows NT 4.0-Core Technologies. Los Angeles. UCLA Extension. Contact: (310)825-4100.

January 6-8 Hands-On Microsoft SQL Server. Glendale. Computer Education International. Contact: (818)553-2607

January 6-February 10 Java Programming Fundamentals. Los Angeles. UCLA Extension. Contact: (310)825-4100

January 9-10 Netware Basic Training. Los Angeles. Professional Learning Center. Contact: (714)725-0758, 72110.2233@compuserve.com

January 11 An Introduction to Java. Los Angeles. UCLA Extension. Contact: (310)825-4100.

January 18 Beginning Macintosh. Los Angeles. LAMG. Contact: (310)319-1821.

January 18 Careers in Multimedia. Los Angeles. LAMG. Contact: (310)319-1821.

January 20-23 Hands-On Microsoft TCP/IP. Glendale. Computer Education International. Contact: (818)553-2607.

January 21-22 Windows NT Server Basics. Los Angeles. Professional Learning Center. Contact: (714)725-0758, 72110.2233@compuserve.com .

January 22 Telecommunications for Beginners. Los Angeles. LAMG. Contact: (310)319-1821.

January 22-23 Hands-On Inter-Adv. Photoshop. Los Angeles. LAMG. Contact: (310)319-1821.

January 25 Before You Buy A Mac. Los Angeles. LAMG. Contact: (310)319-1821.

January 25 Intro to Photoshop. Los Angeles. LAMG. Contact: (310)319-1821.

January 25 Intro to the Internet. Los Angeles. LAMG. Contact: (310)319-1821.

January 27 Fundamentals of C++. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611

January 27 Introduction to Client/Server Computing. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

January 27-30 SkillTech Regional Seminar Series. Phoenix, AZ. Contact: 1-800-34-TRAIN, or URL: http://www.skilltech.com .

January 28 Fundamentals of UNIX. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611

January 28, 30 Hands-On Introduction to the Apple Macintosh. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

January 29 Hands-On Beginning Mac. Los Angeles. LAMG. Contact: (310)319-1821

January 29 Fundamentals of C Programming Language. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

January 31 Hands-On Adv. Beginning Mac. Los Angeles. LAMG. Contact: (310)319-1821

January 31 Introduction to Visual BASIC. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

January 31-February 1 Hands-On Macromedia Studies. Los Angeles. LAMG. Contact: (310)319-1821.

January 31-February 1 Intranets and Extranets: The Hottest Trend on the Internet. Los Angeles. UCLA Extension. Contact: (310)825-4100

Resources

Calendar Of Events *continued.*

February

February 1 An Introduction to Java Applet Programming. Los Angeles. UCLA Extension. Contact: (310)825-4100.

February 1 Java Programming. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February 1–2, 14–15, 28 Microsoft Course 687: Supporting Microsoft Windows NT 4.0–Core Technologies. Los Angeles. UCLA Extension. Contact: (310)825-4100.

February 4–20 Grand Tour of Macintosh Graphics Applications. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February 5 Introduction to PowerBuilder. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February 5 World Wide Web: A Hands-On Introduction. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February 7 Introduction to PowerBuilder. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February 8 Microsoft Word Part 1. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February ■ Microsoft Excel Part I. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February 8 Microsoft Windows 95. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February ■ Adobe Photoshop 3.0: Beginning/Intermediate. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February ■ Macromedia Director. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February 15 Intranets: Bringing Internet Technology to the Corporate Network. Los Angeles. UCLA Extension. Contact: (310)825-4100.

February 19 Creating Your Home Page for the World Wide Web. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February 20 Perl Programming. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February 22 Introduction ■ Visual Basic. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February 22 Fundamentals of SmallTalk. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February 22–March 22 Microsoft Course 689: Supporting Microsoft Windows NT 4.0–Enterprise Technologies. Los Angeles. UCLA Extension. Contact: (310)825-4100.

February 24 Advanced Shell Programming. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February 25 A Hands-On Tour of Macintosh and Key Applications. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February 26 World Wide Web: A Hands-On Introduction. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

February 26 Object-Oriented Analysis. Fullerton. Cal State Fullerton Extension. Contact: (714)773-2611.

March

March 1 An Introduction to Client/Server Programming in Java. Los Angeles. UCLA Extension. Contact: (310)825-4100.

March 1, 14–15, 26–27 Microsoft Course ■■■: Supporting Microsoft Windows NT 4.0–Enterprise Technologies. Los Angeles. UCLA Extension. Contact: (310)825-4100.

Solutions

Pens & Palmtops

whereas the Psion machines are based on a less portable 16-bit design. The fact that Psion can implement a Web browser on their machines, however, does bode well for their chances to compete with the well-heeled Microsoft behemoth.

Cassiopeia

Finally, some more detailed observations about the Casio Cassiopeia itself.

As I mentioned above, the Cassiopeia is based on the Hitachi SL-3 low-power RISC design. Unfortunately they do not say what clock speed the processor is running at, so it is difficult to gauge processor power, but even the slowest SL-3 should theoretically get at least 486-level performance.

That said, the Web browser speed seems to indicate that the machine isn't quite up to its promise; it takes much longer for it to display a page loaded from the RAMdisk than a 486 running Netscape on the same page. However, this could be due to poor programming rather than a slow processor, and the 1.1 beta is significantly faster, as I noted, than 1.0.

Philips and NEC are releasing Win CE devices with a MIPS processor—it is possible that this processor will be a better performer than the SL-3, but it is possible that it will also burn more power.

I found the Casio's battery life under heavy use was approximately ten hours for two AA batteries. I would recommend using rechargeable alkalines or NiCads instead of regular alkalines. Unfortunately the Cassiopeia does not come with an AC adapter standard, so you have to either waste batteries if you use it a lot, or purchase an optional AC adapter/serial cable/cradle. Other problems include the dimness of the screen due to the touch-sensitive layer—better than the OmniGo, but I might have preferred a tiny trackball instead of a touch screen, just to get better contrast.

Overall, however, the Casio is an excellent buy. For $600 you quite get a bit—1MB of RAM, a serial cable and transfer software, a PC Card slot, and a number of useful applications. Although there are other, fancier, and a bit sexier Win CE machines that will hit the market over the next year, Casio is here now with what is likely to become the reference standard handheld PC for a while ■

RESOURCES:

Casio Cassiopeia Palmtop
Casio, Inc.
1-888-204-7765
URL: http://www.casiohpc.com/

Microsoft Windows CE
Microsoft, Inc.
1-800-426-9400
URL: http://www.microsoft.com/
windowsce/default.asp

**Psion Internet Web Browsing
and Email**
Psion, Inc.
1-800-997-7466
URL: http://www.psion.com/news/
psimailinternet.html

Useful Windows CE information site
URL: http://www.ziplink.net/~
maxm/windowsce/index.html

User Group Network

BULLETIN BOARDS

MULTIZONE

Beeline ■■■ Multizone (213)934-3437, 344-0960 (310)640-3481 637-9189 598-4990, (805)526-6346, 287-6162, 268-0050, 273-0479, 532-1416 (818)885-7054, 799-4768, 448-7738 8-N-1, 24 hrs. 32-line chat board, five games, library CD-ROM. One month free trial [Exp #162.]

Brain Toys BBS. Multizone (818)988-3550 557-8687, 707-4476, 700-9877, (213)225-3809, (310)695-7093, 858-0070 Major MUD, 32 lines, Tradewars, Doom II. Backgammon,

chat Free trial, all ages [Exp #162.]

E.C.N. BBS Multizone (310)204-6007, (310)324-5570 (818)249-3989 888-3942. 784-3039 ■■ to 14,400 Full Internet access with SLIP, ■■■, games and more! As low as $10 per month [Exp #160.]

Eden BBS—The Electronic Garden. Multizone (310) 421-2420, 352-4199, 838-1707, (714)548-1900, 530-6335, 528-7225, 472-9456, (818)336-9322, 336-9322 (909)279-2600 telnet.edenbbs.com 24 hrs. 14,400-28,800 ■■ lines.

Adults-only "playground," full Internet access WorldGroup for Windows Sysop Daniel Vesely [Exp #160.]

Gamma Quadrant ■■■ Multizone (714)848-3048, (213)346-8567, (310)598-3520, Telnet: 206 234 134 30. FirstClass Client TCP/IP 206.234.134.30 port 3004. *fc gamma quad com* port 3004 8-N-1 or FirstClass Client, 24 hrs., up to 33,600 Email, games, lifes, extensive Macintosh support OneNet, Internet, FTP Free ■■■ [Exp #162.]

Mr. Wonderful's Lair. Multizone (213)261-8055, (818)451-0874 24 hrs., up to 33,600 Internet echomail, games, shareware, adult, MatchMaker Free 14-day account Sysop Mr. Wonderful [Exp #162]

The Rising Phoenix BBS. Multizone (714)255-1823, 995-3010, (310)425-7404 598-2471, (909) 396-0835. 8-N-1, 24 hrs., 2400-14,400 Family-oriented. 19 lines, chat, MajorMUD, Tradewars, Crosswordz, Farwest Trivia. URL: http:// home.earthlink.net/~nazaire/ Sysop. nazaire@earth link.net [Exp #160.]

Highway ■■ BBS. (310) 397-6854, 391-6567 up to 28,800 TW2002, LORD, Usurper, 20+ onliners, conferences, chat, DoveNet Multinode synchronet Always free! Sysop Warlord [Exp #160.]

Off-LiNe BBS (excalibur). (310)690-0552 24 hrs., up to 28,800 Full Internet access, 21 CD-ROMs, 19GB online, FREE unlimit-■■ 7-day trial Sysop sherbee [Exp #163.]

Paradigm Shift. (310)902-0252 24 hrs., up to 33,600 Unabashedly politi-

cally incorrect? 700+ conference/file areas. Internet email Free Sysop Michael McBroom [Exp #160]

Turbo Time BBS. (310) 642-7519 8-N-1 24 hrs. 300-14,400 Files, messages, LORD Free! Sysop Michael Hilsdale [Exp #160]

714

ActiveMatrix. (714)838-8100 24 hrs., up to 33,600 Internet 36 lines chat, trivia, MajorNet Multi-player head-to-head games. Free demo [Exp #160]

Hotel California BBS

US | **Them**

Does your current provider make you feel like you're driving an Internet clunker?

[promotional text partially illegible]
'The Friendliest ■■■ in Cyberspace'

Accepts As Low As ■■

Voice (818) 487-1321
www.itcyb.com
Telnet itcsys.com

BULLETIN BOARDS continued...

Budapest BBS. (714)901-5366 24 hrs , 14,400 Many Internet newsgroups, fully graphical ▓▓▓ system Multicultural, ▓▓▓, jobs Sysop Fred H [Exp #160]

Sodom ▓ Gomorrah. (714) 531-3790 Adult files, erot-

▓ art and stories Free access ▓▓ ▓▓▓▓ Two lines. [Exp #163]

The Hotline BBS. (714) 774-5165 Full unlimited Internet access $10/▓▓ Call now! Local #'s to Orange County [Exp #160]

The Paradox BBS. (714)539-6395 2400–28,800 Games, files, anime, CD Sysop Rick Nguyen [Exp #162.]

805

SCV PC Users Group BBS. (805)291-1002.

291-1003. 24 hrs , 2400–14,400 Files Interlec email, Wildcat BBS. [Exp #162.]

818

C.I.S.C. (818)330-7596 AVIs, S+GB adult GIFs. 3+GB shareware, fantasy sport leagues with daily stats [Exp #160]

Dark Ages Domain BBS. (818)716-1770. 33,600 Chat, games, database, forums Friendly online community Free month trial [Exp #160]

Ham*Info*Link* Source ▓▓▓. (818)584-1952 8-N-1, 24 hrs up to 14,400 Devoted to amateur radio, ▓▓▓, dx. pack-

et, news, exams/classes Free Sysop KB6AXK [Exp #162]

KTB Internet Online. (818)240-4000, 988-0420 8-N-1, 24 hrs , up to 33,600. Internet access (WWW, FTP, IRC, Gopher) shell, PPP/SLIP, UUCP, virtual Web servers. Free trial. [Exp #160.]

MetaComm BBS. (818) 993-3666, 980-3332 MajorMUD. TradeWars, Game Connection, WG client/server, games, contests, user meets Free trial. ▓▓ ages Sysop 360 [Exp #163.]

Panasia BBS. (818)763-1158 24 hrs , 2400–28,800 Worldwide echo-

mail and Internet email PCBoard/Qmail software high-quality file area. Free access [Exp #163]

The Audiophile Network (TAN) (818)988-0452 8-N-1, 24 hrs The grand-daddy of cyberspace for the audiophile. Sysop *TANINFO@tanet.com* [Exp #160]

909

California Information Services. (909)930-2750 24 hrs , 28,800 Shareware games chat email, forums, and Adult Windows RIP ANSI Sysop Ron and Randy [Exp #163]

MICROTIMES

USER GROUPS cont. from page 230

ASSOCIATIONS

AMIGA

Amiga–San Gabriel Valley (ATUG). Meetings 3rd Sat . 11 am. 1st Southern Baptist Church Temple City Contact Steve. (818) 285-6424 [Exp #161]

APPLE

Original Apple Corps. Meetings 2nd Sun. West LA area. Apple II and Mac users group. Support for beginners through experts. Contact. Fred Duffy. (310) 450-3336 [Exp #161]

ATARI

ATESIG–Atari 8-Bit SIG. 145 Surf Pl. Seal Beach. Cooperative user group for model railroad applications. Contact. (310)430-5433 or D.MCALLISTE2@geple com. [Exp #165]

CAD

Architecture SIG of the LA Macintosh User Group. Meetings 4th Thurs 7.30 pm. LAMG Resource Center. Santa Monica. Focus on computers in architecture interior design landscape architecture and related fields. Guests welcome Contact Setsar McDonough (310) 399-2190 [Exp #163]

GAMES

Computer Entertainment Network. Meetings Every Sat . 6.00 pm Multiplayer games (Command and Conquer, WarCraft 2, Quake Duke 3-D). Contact Mike. (818)571-8805. [Exp #164]

IBM AND COMPATIBLES

Greater South Bay IBM Users Group. Meetings 2nd Tues . 7 . 30 pm. Torrance Recreation Center. Contact [...] 355-7199 [Exp #165]

Long Beach IBM PC And Compatibles Users Group. Meetings 3rd Wed . 7 pm. [...] Temple City [...] East Long Beach area. Beach Wr welcome Cor [...] MicroTIMES / JANUARY [...]

novice and the experienced. BBS, public domain library newsletter. SIGs. $35/year, $45 for families Contact Jim Martis. (310) 439-7114 [Exp #160]

Los Angeles Computer Society. Meetings 2nd Tues . 7.00 pm. Robert Frost Auditorium Culver City High School. 4401 Elenda St Culver City. Door prizes vendor presentations, product review, special interest groups, BBS w/internet email. Contact (310)471-2726 [Exp #165]

NOCCC (North Orange County Computer Club). Meetings 1st Sun, 9.00 am. Chapman University 333 N Glassell Ave Orange Corporate presenters all SIGs consignment table raffles BBS newsletter helpline Call (714) 998-8080 [Exp #160]

Orange County IBM PC Users Group. Meetings 2nd Tues . 6.30 pm. Speakers software, newsletter BBS Open to public all welcome Contact (714)990-0580 or orcopug @prodigy com [Exp #162]

SCV PC-Group. Meetings 2nd Wed . 7.00 pm. Valencia Town Center Community Room Contact (805)238-1680 [Exp #165]

Southern California Computer Society. Meetings 4th Tues ., 7.00 pm Farmers & Merchants Bank Community Room. 12535 Seal Beach Blvd Rossmoor For all interested in IBM and compatible computers. BBS and newsletter $15/yr Contact Jim Perry, (310)-429-3060 [Exp #160]

Thousand Oaks Personal Computer Club (TOPCC). Meetings 4th Thurs 6.00 pm Goebel [...] 1385 E James Rd Thousand Oaks Programs are targeted [...] [...] computer [...] [...] BBS [...] [...] [...] Tug-het Me [...] [...] Toms Park [...] Thousand [...] Blvd Westlake [...] Val PR [...]

San Gabriel Valley Mac Users Group. Meetings 1st

Ample parking Contact (818)249-1629 or 884-9441 [Exp #162]

Valley Computer Club (VCC). Meetings 2nd Tues., 7.00 pm. Burbank YMCA 321 E Magnolia Blvd Burbank. BBS, PD library, SIGs newsletter All welcome Contact Estella McClintock, (818)848-1946 or Grayce Hruda. (818)842-3707 [Exp #163]

Westside PC Users Group. Meetings. 2nd Mon . 7 pm. 4117 Overland Blvd Culver City, CA Contact Hershel Wolfson. (310) 838-5812. [Exp #163]

KAYPRO

KAYOS Kaypro User Group. Meetings 4th Tues., of even months. 6.00 pm El Segundo Library, Mariposa and Richmond streets. Contact (310)379-8339 [Exp #165]

MACINTOSH

Champions Of The Mac Proletariat (CHOMP). Meetings 4th Thurs. 7.00 pm Avery Auditorium Pitzer College. Claremont Q&A. raffle of useful software vendor presentations exchange views opinions expertise Contact Al Seltzer (909)626-7784 or AlSeltzer@aol.com or Mitch Cohen, (909)605-1090 [Exp.#165]

Los Angeles Macintosh Group (LAMG). Meetings 3rd Thurs 7.00 pm Santa Monica High School's Barnum Hall. 601 Pico Blvd Vendor presentations, 25+ SIGs, seminars BBS monthly magazine Guests welcome Contact (310) 319-1821 [Exp #160]

MacWarrior SIG of the L.A. Macintosh Group. Meetings 3rd [...] 2.00 pm LAMG Resource Center. Santa Monica MacWarrior focus [...] computer [...] [...] [...] San Gabriel Valley Mac

Thurs 7.00 pm, auditorium of Pasadena City Library 285 E Walnut St Pasadena Speakers. Q&A drawings PD library newsletter SIGs All skill levels Contact. Mo. (818)790-0913, or Bob, (213)684-0178. [Exp #161]

MISCELLANEOUS

Pomona Valley Computer Users Club. Meetings 4th Thurs 7.00 pm. Pomona First Federal Savings Bank Community Room 9090 Central Ave Montclair, CA Contact Toni Vanderpool, (909)598-1352 [Exp #161]

NETWORKING

Orange County LINUX Users Group (OCLUG). Meetings 1st Wed . 7.00 pm California State University, Fullerton, McCarthy Hall Room 654. N State College Blvd Fullerton CA 92831-3599 Open to all interested in the LINUX UNIX clone operating system for IBM PC compatible computers Contact (714)773-3600, richmc@chaos fullerton

TANDY

San Gabriel Valley Technology Users Group. Meetings 2nd Fri 7.00 pm. Arcadia Park Senior Citizen's Center 405 S Santa Anita Ave Arcadia Support for Tandy and IBM compatibles BBS newsletter, session. Contact.

DPMA–California Southland Association of IS Professionals. Meetings 3rd Wed . 6.30 Gateway Plaza Holiday Inn. 14299 Valley View, La Mirada (I-5 at Valley View exit) A professional association providing new technology, management topics, networking, and education to the Orange County/ LA area. Contact Cathy Grammer-Margolin, (714) 647-1617 or 645-5950 URL http://members aol com/calsoudpma [Exp.#160]

edu ; mgoddard@chaos fullerton.edu URL http:// chaos fullerton edu/oc_lug html . [Exp #161]

Software Council Of Southern California. Meetings usually 4th Wed . 8.00 pm. Long Beach Marriott, main ballroom, 4700 Airport Plaza Dr. also breakfasts and luncheons around SoCal A nonprofit trade association whose membership comprised of software development organizations as well as companies providing support and services to the local software industry Contact Bill Manassera (213)328-0043 or URL http://www scsc org [Exp.#161]

Jack Nack (818)578-0411 [Exp #162.]

WINDOWS

WINNERS–WINdows uSERS. Meetings. 2nd Sat 9.00 am. Orange Coast College Fine Arts #116 2701 Fairview Costa Mesa Friendly helpful, questions, new technology, newsletter, disk library everyone welcome Contact (714)644-5782 [Exp #163]

Fine Art Photos For Sale http://members.aol.com/rol let/2606/Kip1.htm Fine art black and white photos of female models for sale [Exp. #160.]

From The Fringe http:// www.ccnet.com/~tustin Check out the photos and words from Tustin Elison's adventure [Exp. #160.]

Harry's Universe http:// www.catch22.com/~vudu/ Photography and travel information on Belize, Puerto Rico, Virgin Islands, Jamaica, Barbados, Costa Rica, the Dominican Republic, Indonesia, Japan, the Philippines, and more. [Exp. #161.]

John Francis Peters Art http://www.hypsrweb.com/ jfpeters Vibrant, spiritual art with Nature in mind. [Exp. #162.]

Overmire Associates http://www.overmire.com A wide range of services for Museum Collection Management and for private collectors. [Exp. #160.]

Pixel & Paper Art Gallery http://www.demon.co.uk/ london-calling/artgal.html Features a new exhibition of photos of Auschwitz/ Birkenau by Alan Jacobs [Exp. #160.]

Rowena's Page http://redumes b.cs.usfsu.edu/sy/rowena/ Contemporary short stories about a young woman's life. By S D Youngren [Exp #162.]

Art On The Avenue http:// www.artavenues.com

Juried online art show featuring a variety of media and new artists every month [Exp #162.]

Thogek's Wanna-be Story Index http://www.alumni. caltech.edu/~thogek/writ A few excerpts from short stories in progress looking for feedback. Bring your red pens [Exp #160.]

Watercolors By Yoju http:// members.aol.com/ArtBYoju Original watercolor art by Yoju for the home, office, galleries, and agents. [Exp. #161.]

WildArt Gallery http:// www.wildart.com Where can you help save endangered species and make a difference in the world, as well as buy art that is both inspiring and inspired by wildlife? [Exp #162.]

ENTERTAINMENT/ LEISURE

1travel.com http://www. 1travel.com Find the lowest air fares. New Consolidators Online program lets you connect with travel agents who work with fifty five of the top consolidators. [Exp. #160.]

A Panacea http://website f.com Amazing emotional truths. The world's first program capable of eradicating depression using your PC [Exp #160.]

Abbeyrd's Beatles Page http://www.best.com/~ab beyrd/ Featuring the Beatles, the Byrds, the Beach

Boys, and '50s-'60s music in general. [Exp #161.]

Actors Online http://www. actorsonline.com Premiere casting site for actor info, news, and trivia. Free listings to professional actors. [Exp #160.]

American Vaulting Association http://www.horsenet. com/ava/ The sport of equestrian vaulting—gymnastics performed on the back of a moving horse. [Exp #160.]

Amtrak http://www.amtrak. com Amtrak's Web site offers travel planner guests with all of the information and travel tips needed to help ensure an enjoyable adventure by rail [Exp #162.]

Ancient Future http://www. ancient-future.com/index. html Audio-enhanced world music site from internationally acclaimed group, Ancient Future. Online world rhythm training program. [Exp #162.]

Antarcticamao's Food, Wine & Spirits http://www. geocities.com/NapaValley/1971 Your link to food and spirit-related sales. [Exp #162.]

Around World http:// www.warpweb.com/~pegasus8 Save discount travel vouchers lectures at places [Exp #162.]

Atomic Chasers Rockers Rollers http://www. geocities.com/Sunset Strip/5295 Reviews on

albums, articles interviews, top singles chart, top hard rock CDs chart, and more [Exp #162.]

Australian Backpackers Connection http://www. ozsmall.com.au/-austback Backpackers message forwarding service for fax, email, and mail. [Exp. #161.]

Austria For Americans http://www.travel strata/ Your guide to travel in Austria. [Exp #162.]

Babies On Move http:// mpp.com/move/ An online for parents young children in west Angeles. [Exp. #161.]

Baja Bound http://www. bajabound.com/ This books, maps, charts, apparel, and jewelry Baja California, Mexico [Exp #160.]

Bed Tour—Incoming Tour Operator http://www. voit.it/bedintour Find the necessary information for an unforgettable trip to Italy [Exp #161.]

Bile Spitter Cards http:// www.cris.com/~bilespit Twelve different nasty cards to send to the jerks in your life [Exp #160.]

BizeTous Records http:// www.bizetous.com the Blues? "Marketing Blues" makes fun of advertising strategic planning and [Exp #160.]

Black Star Beer http:// www.blackstarbeer.com

Learn about the Great Northern Brewing Co. its Black Star Beer, brewing techniques, and what's to Northwest Montana. [Exp. #160.]

Blue Wolf Network http:// www.bluewolfnet.com Publishers of Browsetaria, a variety show on Web. [Exp. #160.]

Bonsai Web http://www. bonsaiweb.com Devoted to ancient art of bonsai, featuring bonsai critique, a marketplace, discussion groups, and [Exp #162.]

Butterball Turkey Talk Line http://www.butterball.com Discover tips on how to prepare a picture-perfect Thanksgiving dinner, also what's new at Butterball, and [Exp #161.]

C&C Alert http://www. geocities.com/TimesSquare/9780/index.html Red Alert gamers site with information and links [Exp #162.]

Campagnola Trattoria Italiana http://www.mind spring.com/~campagnol/ The menu consists of pasta dishes and courses with hearty [Exp #162.]

Chat http:// chatgames.com Multi-player Play people [Exp #161.]

China Travel Package Discount China [Exp #160.]

travel packages more [Exp #160.]

China Voyages http:// www.chinavoyages.com Featuring comprehensive tour information on China. [Exp #162.]

Choragus ShareMusic http://www.choragus.com/ Choragus/ Christian choral ensemble music. Traditional, classical, contemporary styles [Exp #160.]

CityStuff http://www.city stuff.com Jose's food, fun, and stuff More than just a city guide—each listing is a Web [Exp #162.]

Collectable Card Game Auction http://www. gate.net/~ecgs Magic, Star Trek, Star Wars, many more collectable cards listed. Hundreds auctioned daily [Exp #162.]

Cooking For Dummies Home Page http://www. globalpac.com/unriehl [Exp #162.]

On-line, cpc/ the areas their menus [Exp #162.]

Cyberforce Interactive Adventure that and sets a new gaming [Exp #160.]

Web Page Listings *continued ...*

Cybertown http://www
cybertown.com Futuristic
off-world town with enter-
tainment, information,
community, interactivity,
and free 3-D VR apart-
ments [Exp #161.]

Dee Zaster, Esq. http://
www.globalpac.com/ump
sm/ The politically incorrect,
depraved "bloomer" broad
is working at aggravating
the GOP [Exp #161.]

Devin's Chronicles http://
www.devins.com [Exp.
#162.]

Divots Internet Golf Tour
http://www.divots.com The
first country wide golf tour-
nament, open ■ everyone
[Exp #161.]

Electric Shorts Online
Doom Mini Page http://
users.aol.com/eleeshorts
Doom wads, 3-D gaming
links and demos [Exp
#160.]

ExotiCar Model Company
http://www.exoticarmodel
com Manufacturer of die-
cast model cars and auto-
motive accessories for car
enthusiasts with retail out-
lets ■ Boston and Beverly
Hills [Exp #161.]

First TV http://www.first-
tv.com/ The first televi-
sion/video network on the
Internet [Exp #161.]

Food-For-Thought Soft-
ware http://www.ffts.com/
chtml/ghauser/nyc.html
■■■ You're Cooking 4.0 ■
a versatile cyberkitchen
companion for Windows
[Exp #162.]

The Gathering http://www
takeme.com Full length
music videos from your
favorite alternative ■■■■
[Exp #161.]

■■■■■ Page http://
home.earthlink.net/~gel
rel. ■■■ ■■■■ of ■
■■■■■ with the ■■■■■
Candide, You'll laugh.
You'll cry. [Exp #161.]

■■■ ■■■ Time Net http
■■■ ■■■■■■ net ■ com-
prehensive directory of
recreational destinations
and events in Orange Coun-
ty. Free event ■■■ [Exp
#162.]

Hawaii State Vacation
Planner http://■■■■ fls
rseda.com/ Features ■ wide
array of comprehensive tra-

el info specific ■ Hawaii's
four major island visitor des-
tinations [Exp #161.]

HighlandNet http://www
highlandnet.com Scottish
culture, tradition, Highland
Games and entertainment
in California and ■ the
West Coast. [Exp #161.]

Internet Takeout Place
http://www.takeout-info
com/ Restaurant takeout
guide by category and loca-
tion. [Exp #161.]

Janel Whitebread http://
www.janetspetpeeve.com
[Exp #162.]

Lillyming Entertainment
Network http://home
earthlink.net/~lillyming An
entertainment ■■■ featuring
comedy, satire, and inter-
active fiction [Exp #162.]

Model Air Racing http://
members.tripod.com/~MP
RACE Learn about giant
air racing on our team's
home page. [Exp #162.]

Montreal World Film Fes-
tival http://www.film-mont
real.org Filmgoers in Mon-
treal and around the world
can find film descriptions,
filmographies, and screen
schedules online ■ both
official languages. [Exp
#160.]

Mookie's Place Web http://
www.wco.com/~db/ ■ cool
place for cool people
Online chatrooms and
forums [Exp #162.]

Movie Ratings By You
http://www.cityboy.com/
cityboy/movie Movie data-
base with ratings and com-
ments by movie goers
[Exp #161.]

MultiWar Wargame Home
Page http://www.scvnet
com/~andy/MultiWar.html
MultiWar ■ a user-config-
urable multiplayer war-
■■■■ [Exp #161.]

Music Network USA http://
■■■■■■■■■■ Complete
■■■■ ■■ resources for
music ■■■■ ■■■ ■■■
industry free classifieds
[Exp #160.]

■■■■■ http://www.■■■
■■■■ internet ■■ [Exp #161.]

Official Helen Fanclub
■■■■■■■■■■■■■■■
Times Square/1.663/index
■■■ The ■■■ officially ■■■

ognized fanclub of any
id/Raven game. Member-
ship is free [Exp #160.]

OnVideo http://www.cyber
pod.com/cyberpod/onvi
deo.htm A complete home
video guide to current and
forthcoming movies
released on tape Includes
consumer news, self-
through calendar, and links
to studios [Exp #160.]

The Outdoor Show http://
www.thecircle.com/gwout
doorshow/ Great Western
Sports, RV, and Travel
Show [Exp #162.]

Paris Guide http://www.
geocities.com/Paris/3554
Travel information for
tourists ■■■ businessmen,
including historic sights,
entertainment, and weath-
■■ [Exp #161.]

Pavel Bure Fan Club http://
www.vcn.bc.ca/pbfc The
official fan club for National
Hockey League and Van-
couver Canucks right
winger, Pavel Bure [Exp
#162.]

Popcorn http://members
tripod.com/~AmyDo/index
htm Movie reviews and
news for the next genera-
tion Find the latest in
celebrity gossip. [Exp
#160.]

Preview Travel http://
www.reservations.com
This new site showcases the
company's upgraded airline
ticketing service, including
easy-to-navigate screens ■
book tickets based on your
preferences [Exp #160.]

QUICKcheck http://home
earthlink.net/~jeffsw/index
html Quickly check how
movie critics from fifteen
major newspapers and
magazines rate today's
movies [Exp #162.]

■■■ R&B Page http://www
ropage.com Featuring
music ■■■ interviews ■■
■■■■ via RealAudio
3.0 Upcoming ■■■■■
Hewett Bobby Womack
[Exp #162.]

RailTech Software Sys-
tems http://■■■■■■■■■
puserve.com/homepages
railsoft Anything ■■ every
■■■■ ■■■■■■■ ■■■■
about railroads with links to
all railroad sites [Exp
#162.]

Restaurant Guide http://
www.cyberview.com/cyber
dine.shtml Become a free
member and receive dis-
counts at some of ■ over
300,000 nationwide restau-
rants listed ■ our database.
[Exp #160.]

SeaView Submersibles,
Ltd. http://www.seaview
subs.com Operation of
tourist submarines and
underwater restaurants
[Exp #160.]

Sequoia Yacht Club http://
■■■ gdserv.com.80/hps/
syc/ In Redwood City, CA,
lists activities for sail and
power boaters, plus links ■
other sites. [Exp #160.]

Sesha Press Records
http://www.sesha.com
Spooky music samples,
haunting photos, ■■■ art,
and more [Exp #161.]

Slam And Scream Office
Stories Page http://www
io.com/~slam/ New site for
administrative assistants,
secretaries, and other office
"underlings." [Exp #160.]

Smirnoff Pure Thrill Hotel
http://www.purethrill.com
[Exp #161.]

Snowchasers Ski Club
http://■■■ jaws.com/baski/
clubs/snowchaser/index
html A year-round ski and
■■■■■ club serving Diablo/
San Ramon Valley [Exp
#161.]

SP Presents http://www
netwizards.net/~imevents/
home.htm Affordable
shareware games for Win-
dows 3.1, 95, and NT.
Addictive gameplay [Exp
#161.]

The Spearfishing Page
http://www.cris.com/~cser
rel Covering spearfishing in
Southern California. Info on
fish, spearguns, tactics,
clubs, and related topics
[Exp #162.]

State http://www.stale.com
Parody an Microsoft's State
magazine. [Exp #162.]

Stepher J. Hemenway's
■■■■■■ The ■■■ Home
Page http://pages.predi
gy.com/slouch/ ■■■■■■
■■■■ ■■■■■■ in the
Couch ■■■■■ ■ children's
learning books for ■■■ 4-
11. [Exp #161.]

Taylor Made Golf http://
www.taylormadegolf ■■■■

The ■■■ includes a variety
of information on both the
education and enjoyment
of golf as well as Taylor
Made's products and play-
ers [Exp #161.]

The Torpedoes Dangerous
Surf Music http://www
surf.base.com/torpedoes/
Home page for this high-
intensity surf band—pho-
tos, show schedule, CD
info, and news [Exp #162.]

University Toplinks
http://www.university
toplinks.com/ Content and
links to sites related to
college students—their
life, interests, and tastes
[Exp #161.]

Vinyl Vendors http://www
vinylvendors.com LA-
based company dealing in
rare and collectible
records [Exp #160.]

Weekly Planet http://www
weeklyplanet.com/weekly
planet The global alterna-
tive weekly that delivers
your "link" to news and
entertainment on the Inter-
net. [Exp #162.]

World Wide Discount
Travel Club http://www
wwdiscount travel.com
[Exp #160.]

ADULT
ENTERTAINMENT

Adult Gallery http://www
adultgallery.com Free adult
Web site includes hun-
dreds of pictures. [Exp
#160.]

Adult Video Conferencing
http://home.sprynet.com/s
prynet/adult The hottest ■■
■■■ internet today ■■■
[Exp #162.]

Amateur Connection
http://www.xxxamateurs.
com Over 600 adult CD-
ROMs, videos ■■ adult
novelties Also, features ■■
■■■■■■■■■■■ with ■■
of the finest So. Calif
■■■■■ [Exp #161.]

Bare Bodies http://www
webcom.com/barebod/
Adult Web site $1.95/
month ■ access pics
updated monthly [Exp
#160.]

Date Mail http://www
datemail ■■■ Free online
dating service. Meet
■■■■■■ ■■■■ today ■■
establishing your pres-

ence in cyberspace. [Exp
#160.]

Easy Sex http://206.79
147.115 Includes hot pic-
tures, escorts, and strip
clubs worldwide. [Exp
#161.]

Five Star Entertainment
http://www.fivestar.com
Offering the most erotic,
high-quality videos and
CD-ROMs. Our prices
cannot be beat. [Exp
#160.]

Garden ■ Eden http://
www.goo.com Live XXX
girls, free pics, smut of the
day. A premier adult Web
station since October 1995
[Exp #160.]

Hotel Erotica http://www
hotelerotica.com Adults
only, live shows, photos,
videoclips, free confer-
encing, and more. [Exp
#160.]

Lips Of The Net http://
www.lipsnet.com How to
pick up women in the
'90s, photo gallery nudi-
ty, news and reviews
[Exp #160.]

Live! Live! http://www
hotvisions.com Real-time
live sexy beautiful girls
one-on-one, group, and
other favorites [Exp
#160.]

■■■ Pleasure Guide http://
■■■ pleasureguide.com
The best in adult online
entertainment. Live chat,
personals, reviews, tons of
images, and more! [Exp
#162.]

Tricia's Torrid Tales
http://www.tricia.com
[Exp #160.]

Very Private http://www
veryprivate.com The first
intimate moisturizer to
relieve vaginal dryness
instantly. Gynecologist
tested and approved [Exp
#162.]

Virtual Brothels http://
■■■■ virtualbrothels.com
[Exp #162.]

XPics http://www.xpics
com Adult ■■■ ■ day; a
■■■ ■■ adult site ■
■■■■ [Exp #160.]

■■■ Visious http://www
xxxvisions.com Photos,
■■■■■■ fantasies, hot
links and ■■■■ ■■■ffs
■■■ [Exp #160.]

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DVORAK'S LAST COLUMN • BY JOHN C. DVORAK

The More Things Change...

Or Data-Mining My Past

I went data-

mining the other day by browsing through some optical drives of my personal collection of notes and columns done in 1985. It's interesting that just over a decade has passed and this material is as alien as can be. For your consideration.

Here's an excerpt from a column written for the *San Francisco Examiner.* It's amazing how this is the only thing that still holds up. It was written when the 3.5" disk was just new.

The new 3.5" floppy disk fits perfectly into a shirt pocket. So what happens when you wash it and dry it in a washing machine with a load of clothes?

Well, I took one of these things and washed is and then threw it in the dryer. What happened? I ruined the disk, that's what happened. What would you expect? My recommendation: Don't wash your diskettes as though they were socks.

The column went on to tell how airport x-ray machines don't damage diskettes.

"Airport x-ray machines generate about a 5 Oersteds magnetic field," says Bret Hydore, manager of customer service for the Verbatim Corporation, the leading maker of floppy disks. An Oersted is a measurement of magnetic intensity. 'It takes at least 50 Oersteds to remotely affect a diskette and 1000 to erase one completely. If there is a powerful motor on the conveyor belt it may hurt the diskette more than the x-rays,' he said. Powerful motors may generate a magnetic field that may be a real problem."

In 1985 I began to develop into a curmudgeon, or so I'm told. It was one of the last years where I reviewed parties and events in a rather cynical way. Here's a couple of comments from my look at SIGGRAPH '85.

The reception had food, too. It consisted of salmon paté and cheese. This food was spread onto a 20-foot-long, 3-foot-wide table inconveniently located in a crowded 4-foot-wide aisle.

Along with this gourmet delight, ACM also served thimble-sized glasses of Guglielmo red and white guzzlers—wine poured from one of those cardboard jug boxes reserved for the lowest grade blend.

The crowd didn't notice. Heaven forbid. You felt like you were at the opening of the symphony (in Omaha) the way everyone strutted, held out their pinkies and pursed their lips as they sipped the jug wine. It was pathetic.

Some people wish I was still writing that kind of stuff.

In 1985 we were starting to see the beginnings of some serious computer wars with the Amiga and the Atari ST hitting the streets. While data-mining, I ran into this interesting forum that featured Ed Juge from Tandy. He was asked a lot of questions about Tandy and Atari and Commodore, but the main queries were concerned with the long-forgotten Radio Shack Color Computer, or the CoCo as it was better known. The following excerpt from the conference is worth keeping.

(Ed Juge, Tandy) Nick...We got the CoCo off to a strong start, and the second largest installed base in the home market. We avoid trying to be "independent" of the market. When we came into it, there was nothing else except Apple, at 3X our price. So, I hope the CoCo will continue. If not, like 1000 might be a viable competitor. But we have every reason to expect the CoCo family will keep going for a l-o-n-g time!

Makes you wonder about the current definition of "long." I guess we had already begun the notion of Internet Years (one month).

One of the most important event in the 1970s and into the 1980s was the National Computer Conference which was eventually wiped out by COMDEX. In 1985 I got this memo about that year's conference from a mole attendee who fed me some supposedly valuable information. In hindsight almost every tidbit turned out to be a dead-end. Over the years I've become very skeptical about new products and claims. You'll see why if you read this.

TO: John D.

FM: Mole 122

Stuff from NCC

Toshiba showed a 4MB 3.5" disk drive. Tom Williams knows how it works. Gary Kildall showed his Grolier encyclopedia on a CD-ROM. Markoff thought it was poorly programmed. I didn't see it. Verbatim showed a low-cost 3.5" CD-ROM prototype, sending a message to Japan that that's the new standard, says Bajarin. (I don't know what that means, and I didn't see it, but Tim says it was important.) Doug Clapp-Trap is working for Seybold. NEC showed SoftStyle's Colormate program, which lets you color-in MacPaint files and print them in color on NEC CP2/CP3 printers in one pass. IBM (Itsy Bitsy Machine was Ted Nelson's company name in 1977) showed an incredibly high res AT add-on monitor/card system called the Professional Graphics Adapter, producing black and white pix that look like TV and animated color à la Amiga. Something like 640X200 res.

If I took the notes from all the shows I've ever attended, the information would be just as useless. The only trend you could spot from this report is the trend that more and more products go nowhere, no matter what they tell you.

What's interesting about all this is that I'm to the point where I can data-mine my own resources, since I've habitually collected all my own columns and much email and oddball downloads. Optical drives such as my reliable Tahiti drive have just given me an excuse to keep all this stuff. Having done this column I can now rationalize continuing the process! *Holiday weight-gain blues? Check out John's diet site:* www.easydiet.com . ∎